

SOCIETY
OF
CHEMICAL INDUSTRY

London Meeting, 1905

Special Reception of American and Colonial Visitors

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W. HODGSON ELLIS
M.A., M.B., LL.D.



The first Professor of Applied Chemistry
in the University of Toronto
and second
Dean of the Faculty of Applied Science
and Engineering 1914 to 1919



Presented to the Department of Chemical
Engineering and Applied Chemistry
by Mrs. W. Hodgson Ellis,
March 7th, 1923

Harold van der Lunde



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111 Society of Chemical Industry

Annual General Meeting, 1905

HANDBOOK
OF
LONDON AND PROVINCIAL
EXCURSIONS #

EDITED BY
JULIAN L. BAKER

Hon. Secretary London Section 0

1) London

2) SPOTTISWOODE & CO., LTD., PRINTERS, 54 GRACECHURCH ST.

3) 1905



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INTRODUCTION.

THE following description of the places of interest to be visited by the guest members and members of the Society of Chemical Industry on the occasion of the Annual Meeting in 1905 has been compiled at the request of the Executive Committee. It is hoped that it will form a useful guide and an interesting souvenir of the meeting.

Every endeavour has been made to collect the information from reliable sources, and in this valuable assistance has been received from the Honorary Secretaries of the Country and Scottish Sections, Mr. T. Tyrer, and others.

Mr. T. Tyrer, Mr. B. Corcoran, the Manchester Chamber of Commerce, and Messrs. Methuen & Co. have kindly lent some of the blocks.

The guide has been for the most part written and compiled by Miss E. Daniels, B.A. (Lond.) to whom the Hon. Secretary wishes to express his indebtedness.

JULIAN L. BAKER,

Hon. Local Secretary.

July, 1905.



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Society of Chemical Industry.

President :

WILLIAM H. NICHOLS, M.S., LL.D., D.Sc.

ANNUAL GENERAL MEETING, 1905.

Special Reception of American and Colonial Members.

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*Headquarters of Guests in London :*HOTEL RUSSELL, RUSSELL SQUARE,
W.C.*Tariff :***Single Room, with Breakfast, per person, 8s.****Do. do. with Table d'Hôte Breakfast, per person, 9s.****Double Room, with Two Plain Breakfasts, 12s. 6d.****Do. do. with Two Table d'Hôte Breakfasts, 15s.***NOTE.—The Information Bureau of the Society will be in the Hotel Russell during the London week.**Headquarters in London of Members other than Guests :*

MIDLAND HOTEL, ST. PANCRAS, N.W.

*Tariff :***Single Room, with Table d'Hôte Breakfast, per person, 8s. 6d.****Double Room, ditto, 7s. 3d.**

LONDON WEEK.

MONDAY, JULY 10.

1—10 a.m.—At University College, Gower Street, London (by permission of the Council of University College).
Council Meeting.**11 a.m.**—Annual General Meeting.Presidential Address by WILLIAM H. NICHOLS,
M.S., LL.D., D.Sc.Election of President, 1905-1906, Council, and
Officers.

Other business.

2—1 p.m.—Midland Hotel, St. Pancras.

Luncheon (by invitation of the London Section).

3—3 p.m.—Conveyances leave Midland Hotel for drive through
Hyde Park (Albert Memorial), Richmond Park to
Richmond.**4.30 p.m.**—Garden Party by SIR MAX WAECHTER and LADY
WAECHTER.

MONDAY, JULY 10.—Continued.

Visit to adjacent Picture Galleries of Sir F. L. COOK, Bart.

6 p.m.—Drive back to Hotel Russell and Midland Hotel respectively.

4—9—11.30 p.m.—Reception at the Royal Botanic Gardens, Regent's Park, by Dr. and Mrs. WILLIAM H. NICHOLS and the Members of the London Section of the Society.

The Band of the Coldstream Guards. Conductor, Lieut. J. MACKENZIE ROGAN.

Pastoral Play (*A Midsummer's Night's Dream*). PATRICK KIRWAN'S Idyllic Players.

Supper.

The Gardens will be illuminated.

TUESDAY, JULY 11.

5—9.30 a.m.—Excursion by steamer *Mermaid* from Westminster Bridge Pier.

The Tower Bridge.

The Pool.

11 a.m.—Visit to WOOLWICH ARSENAL.

(Granted at the request of his Excellency the American Ambassador.)

1.30 p.m.—“The Ship,” Greenwich. Fish Luncheon.

2.45 p.m.—Greenwich Hospital to Royal Observatory (by permission of the Astronomer Royal).

5.30 p.m.—Return by steamer.

6.20 p.m.—Arrive Westminster Bridge Pier.

6—9 p.m.—At the Mansion House. Reception by the Rt. Hon. the LORD MAYOR and LADY MAYORESS.

WEDNESDAY, JULY 12.

7—10.18 a.m.—Leave Paddington. Excursion to Windsor Castle and neighbourhood.

11 a.m.—Reception at the Town Hall by the MAYOR OF WINDSOR.

2 p.m.—Luncheon, White Hart Hotel.

4.35 p.m.—Leave Windsor. Return to Hotel by 5.30 p.m.

8a—7.15 p.m.—At the Goldsmiths' Hall (by permission of the Prime Warden and Court).

Annual Dinner, WILLIAM H. NICHOLS, M.S., LL.D., D.Sc., presiding. Supported by Guest Members, Invited Guests, and Members.

8b—7.30 p.m.—At the Café Royal.

Ladies' Dinner, at which Members of the Society will also be present, Sir WILLIAM RAMSAY, K.C.B., F.R.S., Past President, presiding.

Musical Entertainment.

THURSDAY, JULY 13.

9—10.18 a.m.—Leave Waterloo, No 3 Platform (Central Station).

Special train to Haslemere, Surrey.

Arrive 11.30 a.m.

At Lythe Hill. Garden Party by Mr. and Mrs. RICHARD GARTON.

Visits to the home of the late Lord Tennyson (by permission of Lord Tennyson)—Hindhead—the Punch-bowl.

Luncheon. Afternoon Tea.

4.40 p.m.—Special train leaves Haslemere.

5.58 p.m.—Arrive Waterloo.

9 p.m.—At the Royal Society's Rooms, Burlington House.

Reception of the President, American and Colonial Visitors, Past Presidents, and the Council, BY THE PRESIDENT AND COUNCIL OF THE ROYAL SOCIETY.

(By invitation of the Royal Society.)

FRIDAY, JULY 14.

10—9.30 a.m.—Visits by Parties to objects of interest in London, starting from the Hotel Russell, including :

(a.) St. Paul's Cathedral. (Conducted by Archdeacon the Ven. W. M. SINCLAIR, D.D.)

(b.) Westminster Abbey. (The party will be received in the Jerusalem Chamber by the Dean, the Very Rev. J. ARMITAGE ROBINSON, D.D.)

(c.) The Old City Churches. (Conducted by Mr. BRYAN CORCORAN, Mr. C. G. CRESSWELL, and Mr. T. TYRER.

(d.) St. Bartholomew's Church, The Charterhouse. St. Giles', Cripplegate (Milton).

(e.) The Guildhall Museum and Library. (The Party will be received by the Chairman, Mr. W. H. PITMAN, and conducted through the building by the Librarian and Curator, Mr. C. WELCH.)

(f.) The Tower of London. (Conducted by the Keeper of Regalia, General Sir HUGH H. GOUGH, V.C., G.C.B., and Lady GOUGH.)

11—4 p.m.—Garden Party by Mr. J. FLETCHER MOULTON, K.C., M.P., F.R.S., and Mrs. J. FLETCHER MOULTON, at 57 Onslow Square, South Kensington, S.W.)

12—9 p.m.—Visit to "Coliseum."

SATURDAY, JULY 15.

- 13—10.30** a.m.—Leave Charing Cross Station—special train to Dartford (provided by Mr. HENRY S. WELLCOME).
 Visit to Works of Messrs. BURROUGHS, WELLCOME & Co., at Dartford, Kent, by invitation of Mr. HENRY S. WELLCOME.
 Luncheon at the Wellcome Club and Institute.
 Garden Party and Entertainment by Mr. and Mrs. HENRY S. WELLCOME.
- 5.30** p.m.—Leave Dartford for London.
- 6.5** p.m.—Arrive Charing Cross.
- 14—7** p.m.—Dinner at the Criterion Restaurant, Piccadilly Circus.
- 9** p.m.—Earl's Court Exhibition—Naval, Shipping, and Fisheries.
 Inspection of Nelson Relics, etc.

SUNDAY, JULY 16.

- 15—10.45** a.m.—Leave Charing Cross Station—special train to Canterbury.
- 1** p.m.—Luncheon at the County Hotel.
- 3** p.m.—Afternoon Service in Cathedral.
- 4.15** p.m.—Party conducted over the Cathedral by the Dean, the Very Rev. HENRY WACE, D.D.
- 5.45** p.m.—Tea at the County Hotel.
- 7** p.m.—Return to London.

VISITS TO THE COUNTRY SECTIONS.

<i>Synopsis of Railway Journey.</i>						s.	d.
July 17	...	St. Pancras to Nottingham	...	Fare	10	3	
" 18	...	Nottingham „ Rowsley	...	"	2	8	$\frac{1}{2}$
" 18	...	Bakewell „ Manchester	...	"	2	8	$\frac{1}{2}$
" 19	...	Manchester „ Chester	...	"	2	10	
" 20	...	Chester „ Liverpool	...	"	1	6	
" 21	...	Liverpool „ York	...	"	8	1	$\frac{1}{2}$
" 22	...	York „ Ripon	...	"	2	5	$\frac{1}{2}$
" 22	...	Ripon „ Newcastle	...	"	5	10	$\frac{1}{2}$
" 23	...	Newcastle „ Durham (return)	...	"	2	3	
" 24	...	Newcastle „ Edinburgh	...	"	10	4	$\frac{1}{2}$
" 26	...	Edinburgh „ Callender	...	"	4	4	
" 26	...	Balloch „ Glasgow	...	"	1	0	$\frac{1}{2}$

Luggage, which should bear the labels supplied at the Information Bureau, Hotel Russell, will be sent to the various Hotels *en route* free of charge, and will be attended to by competent officials.

Special arrangements have been made with the Railway Companies for securing comfortable third-class through accommodation during the entire journey.

Arrangements for Cabling from the United States.

The word "KOWITLAW" has been registered with the Commercial Cable Company. Cablegrams will be delivered as follows:

c/o KOWITLAW, LONDON	July 10-17	HOTEL RUSSELL.
„ NOTTINGHAM	„ 17-18	VICTORIA STATION HOTEL.
„ MANCHESTER	„ 19	GRAND HOTEL.
„ LIVERPOOL	„ 20-21	ADELPHI HOTEL.
„ YORK ...	„ 22	STATION HOTEL.
„ NEWCASTLE	„ 23-24	DITTO.
„ EDINBURGH	„ 25	NORTH BRITISH STATION HOTEL.
„ GLASGOW	„ 26-27	DITTO.

MONDAY, JULY 17.

9 a.m.—Leave St. Pancras for Nottingham.

11.45 a.m.—Arrive Nottingham.

NOTE.—The Information Bureau of the Nottingham Section will be at the Victoria Station Hotel.

NOTTINGHAM HOTELS:

Victoria Station Hotel—George Hotel.

TARIFFS:

<i>Bed and Breakfast, including Bath and attendance.</i>						s. d.
<i>Single Room</i>	...	...	...	...	...	6 6
<i>Tea</i>	...	...	...	...	...	1 0
<i>Dinner</i>	...	...	...	...	...	3 6

16—1 p.m.—Luncheon at Victoria Station Hotel (except for Burton party).

17—AFTERNOON—Visits to Bass' Brewery, Burton (Luncheon by invitation of the Firm).

18—Alsopp's Brewery, Burton (Luncheon by invitation of the Firm).

19—2 p.m.—Leave Victoria Station Hotel.
Turney Brothers, Limited (Leather Manufacturers).

20—2 p.m.—Leave Victoria Station Hotel.
Thomas Adams, Limited (Lace Manufacturers).

21—2.5 p.m.—Train leaves Midland Station.
Excursion to Southwell Minster (Cathedral Church of Diocese of Nottingham—13th Century Architecture).

22—2 p.m.—Leave Victoria Station Hotel. Excursions to places of interest in the City (conducted by Mr. H. POTTER BRISCOE, City Librarian).

23—8—11 p.m.—Reception at the Castle by the MAYOR and MAYORESS of NOTTINGHAM and the Members of the Nottingham Section of the Society.

TUESDAY, JULY 18.

- 24—9.30 a.m.**—Leave Nottingham by train for Rowsley.
 Conveyance to Haddon Hall (Dorothy Vernon).
12.45 p.m.—Luncheon.
1.45 p.m.—Conveyance to Chatsworth (seat of the Duke of Devonshire).
4.15 p.m.—Baslow. (Tea).
5.30 p.m.—Take train from Bakewell to Manchester. Arrive about 6.30 p.m.
25—9 p.m.—Reception by the Members of the Manchester Section of the Society at the City Art Gallery.

WEDNESDAY, JULY 19.

NOTE.—The Information Bureau of the Manchester Section is at the Grand Hotel.

MANCHESTER HOTELS:

Grand—Midland—Queen's.

TARIFF (*Grand*):

*Bedroom and Breakfast, 5s. 6d. to 8s. according to position.
 Dinner 5s.*

TARIFF (*Midland*):

*Double Bedroom and Breakfast, 7s. 3d. for each person.
 Single Bedroom and Breakfast, 8s. 6d. for each person.
 Dinner, 6s.*

Visit to Works.

- 26—9.22 a.m.**—Leave Victoria Station, No. 14 Platform.
 The Chemical Works of John Riley & Sons,
 Hapton, Lancashire.
 Luncheon, by invitation of the Firm.
- 27—10.35 a.m.**—Leave Victoria Station, No. 13 Platform.
 The Works of John Ormerod & Sons, Tanners,
 Curriers, and Belting Manufacturers.
 Luncheon, by invitation of the Firm.
- 28**—Visits to places of interest in the City.
- (a) The Town Hall.
 - (b) The City of Manchester Art Gallery.
 - (c) The Corporation Electrical Power Station (Dickenson Street).
 - (d) The Corporation Gas Works (Bradford Road).
 - (e) The Corporation Sewage Works (Davyhulme).
 - (f) The Manchester University.
 - (g) The Municipal School of Technology (**Luncheon will be provided**).
 - (h) The Cheetham and the John Rylands Libraries.
 - (i) The Engineering Works of Mather & Platt.
 - (j) The Works of S. Schwabe & Co. (Branch of the Calico Printers' Association).
 - (k) The Manchester Ship Canal.
- 29—7.30 p.m.**—Dinner at the Grand Hotel. The Chairman-Elect of the Manchester Section presiding.

THURSDAY, JULY 20.

- 30**—9.25 a.m.—Leave Manchester Central Station for Chester.
 9.14 a.m.—Leave Liverpool Low Level for Chester.
 10.15 a.m.—Visit to places of interest in the City: The Cathedral. Roman Chester. Mediæval Chester, etc.
 12.15 p.m.—Luncheon at Bolland's Assembly Rooms.
 1.30 p.m.—Excursion on River Dee (special steamer).
 2.30 p.m.—Arrive "Iron Bridge."
 View grounds of Eaton Hall (the seat of the Duke of Westminster).
 3 p.m.—Afternoon tea at "Iron Bridge."
 3.45 p.m.—Leave by steamer.
 4.45 p.m.—Arrive Chester.
 5.10 p.m.—Leave Chester for Liverpool.
 5.47 p.m.—Arrive Liverpool (Low Level Central Station).
31—7 for 7.15 p.m.—Dinner at State Restaurant. The CHAIRMAN of the Liverpool Section presiding.
32—9 p.m.—Reception by the LORD MAYOR OF LIVERPOOL at the Town Hall.

FRIDAY, JULY 21.

NOTE.—The information Bureau of the Liverpool Section will be at the Adelphi Hotel.

HOTELS:

Adelphi and London & North Western.

TARIFF:

Single Bedroom and Breakfast, 7s. 6d. each person.

Double Bedroom and Breakfast, 7s. 3d. each person.

- 33**—10 a.m.—Excursion on White Star tender *Magnetic* (lent by Ismay, Imray & Co.).
 12.30 p.m.—Arrive New Brighton.
 12.45 p.m.—Luncheon at Tower.
 2 p.m.—Leave New Brighton Pier.
 2.30 p.m.—Arrive New Ferry.
 Embark Port Sunlight Visitors.
34—10 a.m.—Depart for New Ferry on White Star tender *Magnetic*.
 10.30 a.m.—Visit to Soap Works of Lever Brothers at Port Sunlight.
 Luncheon by invitation of the Firm.
 3 p.m.—Proceed up the Manchester Ship Canal. Tea served on board.
 5.30 p.m.—Arrive Landing Stage, Liverpool. Conveyance will be provided to the Hotel.
35—10 a.m.—Visit to the University of Liverpool and the School of Tropical Medicine, the party joining Excursion **33** at New Brighton for Luncheon.
 7 p.m.—Leave Liverpool for York. Dinner on train.
 10 p.m. (about)—Arrive York.

SATURDAY, JULY 22.

NOTE.—The Information Bureau of the Yorkshire Section will be at the Station Hotel.

HOTELS : Station—Hanker's—Black Swan.

Bedroom, Bath and Breakfast :

Single Rooms, 8s. 6d. to 10s. each person.

Double Rooms, 8s. to 9s. each person.

36—10 a.m.—Visit to Objects of Interest in City by invitation of the Philosophical Society.

37—11.30 a.m.—Visit to the Cocoa Works of Rowntree & Co.

1 p.m.—Luncheon by invitation of the Firm.

38—2.40 p.m.—Leave York for Ripon.

Drive to Fountains Abbey.

6.35 p.m.—Leave Ripon for Newcastle.

Dinner on Train.

8.8 p.m.—Arrive Newcastle.

SUNDAY, JULY 23.

NOTE.—The Information Bureau of the Durham and Newcastle Section will be at the Station Hotel, Newcastle.

HOTEL : Station.

TARIFF :

Bedroom, Bath, and Breakfast :

Single Rooms, 8s. 6d. to 10s. each person.

Double Rooms, 8s. to 9s. each person.

39—9 a.m.—Train to Durham.

10 a.m.—Service in Cathedral.

12 a.m.—Inspection of Cathedral and Cloisters, conducted by the Dean, the Very Rev. GEORGE WILLIAM KITCHIN, D.D.

40—1.30 p.m.—Luncheon at the Town Hall.

Visits to places of interest in the City.

4.30 p.m.—Return to Newcastle.

41—7 p.m.—Service in cathedral.

Sermon by the Vicar, the Rev. Canon GOUGH.
Organ Recital.

MONDAY, JULY 24.

42—9.30 a.m.—Visits to objects of interest in the City : The Castle, Black Gate and Stephenson's High-Level Bridge, Swing Bridge.

43—11 a.m.—Excursion by Steamer (lent by the Tyne Commissioners) to Tynemouth and the Priory.

1.30 p.m.—Luncheon.

2.30 p.m.—Return by Steamer to Palmers' Iron Works and Shipbuilding Yard. Inspection of Works.
Afternoon Tea by invitation of the Firm.

5 p.m.—Return by Steamer to Newcastle.

7 p.m.—Train to Edinburgh.

Dinner on Train.

10 p.m.—Arrive Edinburgh.

TUESDAY, JULY 25.

NOTE.—The Information Bureau of the Scottish Section will be :—EDINBURGH :
North British Hotel ; GLASGOW : North British Hotel.

HOTEL :

The North British Station.

TARIFF :

Bedroom and Breakfast, 8s. 6d.

- 44**—9.15 a.m.—Drive to Holyrood Palace and through Old Edinburgh. Visits to the Palace, John Knox's House, St. Giles' Cathedral, Parliament House, and the Castle.
- 2 p.m.—Train to Leith. Steamer on Firth of Forth to South Queensferry. Drive from Forth Bridge through Dalmeny Park (by kind permission of Lord ROSEBURY) to Edinburgh.
- 45**—2 p.m.—Luncheon in North British Station Hotel.
- 46**—5 p.m.—Reception in City Chambers by the Magistrates and Town Council of the City of Edinburgh. Light Refreshments.
- 47**—8.30 p.m.—Reception at the Council Chambers by the LORD PROVOST OF EDINBURGH.

WEDNESDAY, JULY 26.

- 48**—9.25 a.m.—Train from Princes Street Station, Caledonian Railway, to Callander, arriving 11 a.m.
- 11.5 a.m.—Coach to Trossachs Hotel.
- 1 p.m.—Luncheon in Trossachs Hotel.
- 2.15 p.m.—Steamer on Loch Katrine to Stronachlachar.
- 3.10 p.m.—Coach from Stronachlachar to Inversnaid.
- 4.45 p.m.—Steamer on Loch Lomond to Balloch.
- 6.35 p.m.—Leave Balloch.
- 7.19 p.m.—Arrive at Glasgow Central Station.

HOTEL :

North British Station.

TARIFF :

Bed and Breakfast, 8s. 6d.

St. Enoch's Hotel : Bed and Breakfast from 7s. to 8s. inclusive.

THURSDAY, JULY 27.

Firth of Clyde Excursion.

- 49**—9.30 a.m.—Train from St. Enoch Station, Glasgow.
- 10.15 a.m.—Arrive Princes Pier, Greenock.
- 10.20 a.m.—Steamer on Firth, visiting some of the Lochs, sailing through the Kyles of Bute and round the Island of Bute.
- 5 p.m.—Arrive Princes Pier.
- 6 p.m.—Arrive Glasgow, St. Enoch's.
Luncheon, with light wines, and Tea will be served on board the steamer.
- 50**—8.30 p.m.—Reception in the Municipal Buildings by the LORD PROVOST and Magistrates of the City of Glasgow.

Society of Chemical Industry.

ANNUAL GENERAL MEETING, 1905.

LONDON.

“I pray you let us satisfy our eyes
With the memorials and things of fame
That do renown this city.”—*Twelfth Night*.

MONDAY, JULY 10.

University College, in Gower Street, stands near the site of what was once a wild district known as the Field of Forty Footsteps, which had a bad reputation as the scene of a sanguinary duel (about 1685) between two brothers, who were both killed; no grass would grow over the footsteps trodden by the duellists, which were said to be recognisable until 1800, when the ground was built over. The object of the institution is “the general advancement of literature and science by affording to young men adequate opportunities for obtaining literary and scientific education at a moderate expense.” Now, in certain departments, it opens its doors to women also.

It was originally founded in 1826 owing to the exertions of Lord Brougham, Thomas Campbell (the poet), and others, as “The London University,” but under the charter of incorporation the title was changed to University College. The course of instruction is of a comprehensive kind. The college is open to all, and everything is taught that falls within a university curriculum with the single exception of theology,

which, by its constitution, is prohibited. One of its most special features is science, and in its laboratories our Past-President, Sir William Ramsay, K.C.B., F.R.S., has conducted his epoch-making researches.

The engineering department and school of medicine are deservedly distinguished, and the professors of its respective branches are of the very highest reputation in their several subjects.

After the address of the President, an adjournment will be made to the St. Pancras Hotel for lunch, following which the members and their friends will proceed in conveyances to Richmond, through some of the most interesting districts of London.

Hyde Park, which Lord Chatham called "one of the lungs of London," connects the Green Park with Kensington Gardens, thus carrying a continuous open space from the Horse Guards, Whitehall, to Kensington. Its area (in conjunction with Kensington Gardens) is over 600 acres, and when the value of land in London is estimated at the square foot this amount of open ground represents an enormously large sum. The whole park is intersected with well-kept footpaths and carriage drives, where may be seen any afternoon in the London season all the wealth and fashion, the splendid motor cars and equipages of the English aristocracy. Deer fences enclosed it at a very early period, but it was walled in with brick by Charles II., which in the reign of George IV. was displaced by an open iron railing. In 1550 the king and French ambassador hunted in it. In Charles I.'s time it became celebrated for its foot and horse races round the Ring, in Cromwell's time for its coach races, and in Charles II.'s time for its drives and promenades—a reputation which it still retains.

The **National Memorial** monument to the Prince Consort stands at the west end of the park and opposite to the Albert Hall. This monument consists of a huge statue of the Prince, over-canopied by an elaborate Gothic tabernacle. £120,000 was publicly contributed, which was supplemented by a Parliamentary grant of £50,000. The design selected was that of Mr. G. G. Scott, R.A., who was knighted on its completion. The architect describes the idea of the memorial as that of a colossal statue of the Prince, placed beneath a vast and magnificent shrine or tabernacle and surrounded by works of sculpture illustrating those arts and sciences which he fostered and the great undertakings which he originated.

The **Royal Albert Hall of Arts and Sciences** stands opposite to the Albert Memorial, on the site of the Gore House of Countess Blessington and D'Orsay. It is used for great musical performances, exhibitions of art and science, and important assemblies and functions. The Prince Consort originated the design at the close of the Exhibition of 1851, but it was carried out at a cost of £200,000 by a private company in commemoration of his services to the arts.

In **Kensington Gardens**, at their western end, stands Kensington Palace, where Queen Victoria was born, where she spent her childhood, and where, at five o'clock on the eventful morning of June 21, 1837, she received the news of her accession to the throne.

Beyond Hyde Park, to the west, lies **Kensington**—once a village, now a town—a mile and a half from Hyde Park Corner. The name has always been assumed to be connected with “king,” from the fact that in early days it had been a royal residence, but it is more probable that the name is a patronymic. It is not so long ago that all this district was a semi-rural suburb, with open spaces and market gardens; now it is one of the most fashionable residential portions of the great city. Of late years the roadside inns have disappeared, and the rustic cottages have been replaced by “palatial mansions,” the market gardens by endless squares, roads, crescents, parks, and terraces.

The old church of **St. Mary Abbott's**, at the extremity of the High Street, was originally a plain brick building, erected in 1694, but Sir G. G. Scott designed the new St. Mary's in 1869. The old church, although not such a handsome edifice as the new, possessed many historic memories which the present one lacks. Addison, Wilberforce, Thackeray, Macaulay, were among its regular worshippers, and its parish registers contain many historic names. About half a mile further west is **Holland House**, one of the most interesting mansions in the vicinity of London, and built by Sir Walter Cope in 1607. Macaulay, who was a frequent visitor at the house, wrote that it was a mansion “whose turrets and gardens are associated with so much that is interesting and noble, with the courtly magnificence of Rich, with the loves of Ormond, with the councils of Cromwell, with the death of Addison—the favourite resort of wits and beauties, of painters and poets, of scholars, philosophers, and statesmen.” From 1799 to 1840 there was hardly a distinguished man in politics, science, or literature who had not been a guest in Holland House.

Leaving Kensington, the road soon brings us to **Hammer-smith**, now a town of considerable size, but of little interest to strangers. The church of St. Paul, on the high road, consecrated in 1631, and containing some interesting monuments (a ceiling painted by Cipriani, and an altar-piece carved by Grinling Gibbons), was unfortunately pulled down in 1882 to make room for a new and larger edifice. A very fine view of the Thames can be obtained from Hammersmith Bridge, including a glimpse of historic **Chiswick** on the right. In Chiswick House, the property of the Duke of Devonshire, Charles James Fox died in 1806, and George Canning in 1827. It was built by the Earl of Burlington, the builder of Burlington House, Piccadilly, in imitation of the Villa Capra at Vicenza. The churchyard of the very old church contains the grave of Hogarth, the painter, who died in a dwelling near, now called Hogarth House. On the left of Hammersmith Bridge is the terminus of the new London County Council river steamers, which, after years of agitation, have at last become an accomplished fact. Passing from here through Barnes—an old and historic village, possessing a church partly of the twelfth century, freely restored, and having a modern ivy-clad tower—Richmond Park is entered at the East Sheen Gate.

Richmond Park was laid out by Charles I. in 1654. It is 2,253 acres in area, and its enclosing brick wall is eight miles in circumference. The park is a favourite summer resort both of Londoners and strangers, and is frequented by crowds of pedestrians, horsemen, motors, and carriages. The Pen Ponds (pieces of water having an area of eighteen acres) and large herds of deer also add to its charm. Pembroke Lodge, in this park, was the seat of Lord John Russell, and White Lodge is the seat of the Duke of Teck and the girlhood home of our Princess of Wales. It is here that Scott makes Jeanie Deans, in his *Heart of Midlothian*, have her interview with Queen Caroline.

Richmond is one of the fairest of London's suburbs. It is a town in Surrey, $8\frac{1}{2}$ miles from the City, standing partly on the summit and declivity of Richmond Hill and partly on the right bank of the Thames.

The original name of the place was Sheen, a name which still survives in the neighbouring East Sheen. The ancient manor-house here, in which Edward I. received commissioners from Scotland, was replaced under Edward III. by a palace. This, pulled down by Richard II., was rebuilt by Henry V., and again in 1499 (after a fire), and with greater splendour, by

Henry VII., who named it Richmond after his former earldom. Henry VIII. and his daughter Elizabeth often held their courts in this palace, and the latter died here in 1603. In 1649 the palace was demolished by order of Parliament, with the exception of a small portion, which may be approached through a stone gateway in Richmond Green.

At Richmond parish church are buried the poet Thomson—the author of “The Seasons”—and Edmund Kean, the famous actor; and here, too, Dean Swift’s Stella was baptised.

The Terrace, stretching along the brow of the hill, is justly famous for the unrivalled view of the Thames which it



VIEW FROM RICHMOND HILL.

commands. This picture of hill and dale, woodland and winding stream, has been portrayed on canvas by many an artist.

Our destination, “The Terrace House,” is now reached, and the visitors and members will be entertained at a garden party given in their honour by Sir Max and Lady Waëchter.

Sir Max Waëchter has also very kindly offered to show a party over the adjacent picture galleries of Sir F. L. Cook, Bart.

In the evening, from 9 to 11.30, Dr. and Mrs. W. H. Nichols, Mr. and Mrs. A. Gordon Salamon, and the members of the London Section will receive the visitors and members in the Royal Botanic Gardens, where an open-air representation of *A Midsummer Night’s Dream* will be given.

The **Royal Botanic Society’s Gardens** are circular in

shape, situated in the southern part of Regent's Park, and comprise an area of about eighteen acres. They are maintained at the expense of the society, and, as would be expected, they are tastefully laid out. This society, incorporated in 1839, was founded for the promotion of botany in all its branches. The ground is held on a lease from the Crown, was originally known as "Willan's Farm," and was laid out by Robert Marnock for scientific purposes. The gardens are well kept, and contain a variety of ornamental trees and shrubs. The conservatory is filled with rare and beautiful plants. Its fine grounds are admirably suited for all kinds of society functions and the flower shows held there are quite a feature of the London season.



TUESDAY, JULY 11.

**VISIT TO GREENWICH AND
WOOLWICH.**

(Leaving Westminster Bridge Pier by the *Mermaid* at 9.30 a.m.)

The scenery of the Thames below Westminster Bridge contrasts very unfavourably with the beauties of the same river higher up; yet the trip down to Greenwich has attractions of its own, and may be recommended as affording a good survey of the vast commercial traffic of London.

Westminster Bridge, erected in 1856-62 on the site of an earlier stone bridge, is one of the handsomest bridges in London, and affords an admirable view of the Houses of Parliament. Leaving Westminster Bridge, most of the prominent objects of interest are on the left bank.

New Scotland Yard, on the Victoria Embankment, the headquarters of the Metropolitan Police since 1891, is a turreted building in the Scottish baronial style, and was designed by Norman Shaw.

Montague House, on the east side of Whitehall, is the mansion of the Duke of Buccleuch, containing a splendid collection of miniatures and many valuable pictures.

After passing under Charing Cross Railway Bridge, by the Adelphi Steps rises **Cleopatra's Needle**, an Egyptian obelisk erected here in 1878. This famous obelisk was presented to the British Government by Mohammed Ali, and brought to this country by the private munificence of Dr. Erasmus Wilson. Properly speaking, Cleopatra's Needle is the name of the companion obelisk now in New York, which stood erect at Alexandria till its removal, while the one now in London lay prostrate for many years. Both monoliths were originally brought from Heliopolis, which is referred to in the inscription on the London obelisk as the "house of the Phoenix."

A little farther on, near **Waterloo Bridge**, rises the **Hotel Cecil**, an enormous building by Perry and Reed, occupying the site of one of the most ambitious enterprises of the

notorious Liberator Society. It is adjoined by the **Savoy Hotel**, beyond which stands the Medical Examination Hall, a building of red brick and Portland stone erected in the Italian style. Below the bridge are the river façade and terrace of **Somerset House**, a large quadrangular building erected by Sir William Chambers in 1776-86 on the site of a palace which the Protector Somerset began to build in 1549. It is now occupied by various public offices, which include the Audit Office, the Inland Revenue Office, the office of the Registrar-General of Births, Deaths, and Marriages, and the Probate Registry. Then follows the **Temple**, with its modern Gothic library, and its gardens. Farther on to the east, beyond two palatial blocks of offices, are the buildings of the Metropolitan Asylums Board and the Thames Conservancy; immediately adjoining the latter is the Gothic building of Sion College and Library, beyond which is the **City of London School**, at which Dr. W. H. Perkin, F.R.S.; Mr. S. Hall, the Treasurer of the Society; the President-Elect, Dr. G. Divers, F.R.S., and many other members of the Society received their early education. The Embankment ends at **Blackfriars Bridge**, an iron structure built by Cubitt, and occupying the site of a stone bridge dating from 1769, the piers of which had given way.

The bridge derives its name from an ancient monastery of the Black Friars, situated on the bank of the river, and dating from 1276, where several Parliaments once met, and where Cardinals Wolsey and Campeggio pronounced sentence of divorce against the unfortunate Queen Catherine of Aragon in 1529. Shakespeare's name is associated with Blackfriars, and in 1599 he acted at a theatre which formerly occupied part of the site of the monastery, and of which Playhouse Yard is still a reminiscence.

Just below Blackfriars Bridge is the South Eastern and Chatham Railway Bridge. From here the dome of St. Paul's can be seen to advantage.

Southwark Bridge, erected in 1815-19, consists of three iron arches borne on stone piers. Its traffic is comparatively small on account of the inconvenience of the approaches, but this has of late greatly increased. In Southwark, on the south bank, lies Barclay & Perkins' Brewery; and having passed this we come to **London Bridge**, until 1769 the only way over the Thames.

The Saxons, and perhaps the Romans before them, erected various wooden bridges over the river near the site of the present

London Bridge, but these were all at different periods carried away by floods or destroyed by fire. In 1176 Henry II. instructed Peter, chaplain of the church of St. Mary Cole, to construct a stone bridge at this point, but the work was not completed till 1209. A chapel, dedicated to St. Thomas of Canterbury, was erected upon the bridge, and a row of houses sprang up on each side, so that it resembled a continuous street. The present structure was designed by John Rennie, a Scottish engineer, begun in 1825, and completed in 1831. It is estimated that, in spite of the relief afforded by Tower Bridge, 22,000 vehicles and about 110,000 pedestrians cross London Bridge daily—a fact which may give a visitor some idea of the prodigious traffic carried on in this part of the city.

If there is one place in London where, at any time of the day and all the year round, you may find a long line of people, men and women, boys and girls, rich and poor, workers and idlers, standing gazing intently on the river below, it is on London Bridge. They lean against the parapet and look down upon the **Pool**—that reach of river which lies below this landmark. To those who are ignorant of the fact that London is one of the great ports of the world the sight of the Pool would not convey that knowledge. The steamers here are not the great liners; they are much smaller craft, plying between London and Hamburg, London and Dieppe, London and Antwerp, etc. All the enormous ships which bring the treasures of the world to London are hidden away in the docks out of sight, and the busiest part of the port now lies below Tower Bridge.

Passing down the Pool, the principal objects seen on the north bank are the **Monument**, erected in 1671-77 in commemoration of the great fire of London; **Billingsgate**, the chief fish-market of London, and having the oldest wharf on the Thames; and, adjacent to it, the **Custom House**, with its imposing façade. This is the fifth or sixth Custom House. The first of which we have any record—that in which Chaucer was an officer—stood a little nearer the Tower. The Customs duties levied at the port of London amount to about £11,000,000 a year, being nearly equal to those of all the other British seaports put together. Lower down, on the same side, is the **Tower**, the ancient fortress and gloomy State prison of London, and historically the most interesting spot in England. It is an irregular mass of buildings erected at various periods, surrounded by a battlemented wall and a deep moat, which was drained in 1843. It stands outside the boundary of the old city

walls, and externally has undergone many changes. Though at first a royal palace and a fortress, it is best known in history as a prison. At present it is a Government arsenal, but its fortifications are still kept in repair. The oldest part of the pile, the square White Tower, stands out conspicuously in the centre; this was begun about 1078 on a site previously occupied by two bastions built by King Alfred in 885. Immediately below the Tower the Thames is spanned by the huge Tower Bridge.

Tower Bridge, London's great water gate, was begun in 1884 and finished in 1894. It was designed by the late Sir Horace Jones and Mr. Wolfe Barry, and is a "basculé" bridge, consisting of two massive Gothic towers communicating with each bank by a suspension bridge 270 ft. long.

In the two towers are placed stairs and lifts, which give access from the lower level to a permanent footway, 142 ft. above high water, between the two towers. The lower bridge is 29½ ft. above high-water level; the central span of this is fitted with two bascules, which are raised by weights inside the towers, thus leaving the centre space clear for the passage of large vessels. The bascule is, as it were, a well-balanced lever turning on a fulcrum, the short, weighted end being inside the tower, the long, heavy arm forming the bascule. Thus a comparatively small force in one and a half minutes can gently and noiselessly raise the two huge arms, making the interruption to traffic last little longer than a few minutes.

Beyond the Tower Bridge are **St. Katharine's and London Docks**, both on the right-hand side. The former occupy a site on which once stood the ancient St. Katharine's Hospital, founded by Matilda, the queen of Stephen.

Outside these docks begins the place called **Wapping**, formerly known as "Wapping in the Ouze," or "Wapping on the Wall." All along the river here, along the low, broken coast, stands "The Wall," the earthwork by which the river is kept from overflowing the grounds at high water. This wall, which was constantly getting destroyed, and cost great sums of money to restore, was the cause of the first settlement of Wapping. It was in the reign of Queen Elizabeth that people were encouraged to settle here, in order that by building houses on and close to the wall this work would be strengthened and maintained. This district soon became thickly populated by "seafaring men and tradesmen dealing in commodities for the supply of shipping and shipmen." "Wapping Old Stairs" still remains to show where sailors landed when they returned

from a voyage. Wapping is connected with the opposite bank of **Rotherhithe** by the Thames Tunnel. Here, to the east of the tunnel, are situated the numerous large basins of the **Surrey Commercial Docks**, covering an area of about 350 acres, and chiefly used for timber. **Shadwell**, on the north bank of the river, is only a continuation of Wapping. At Limehouse Pier—the beginning of the Limehouse Reach—the Pool ends.

Entering this reach, the **West India Docks** lie between Limehouse and Blackwall, to the north of the Isle of Dogs, which is formed here by a sudden bend of the river. The smaller **East India Docks** are at Blackwall, a little lower down. The **Millwall Docks**, 100 acres in extent, are in the Isle of Dogs, to the south of the West India Docks. At the southern extremity of the Isle of Dogs is North Greenwich Railway Station, in Cubitt Town, whence there is a railway steam-ferry to **Greenwich** on the south bank of the Thames. Above Greenwich lies **Deptford**, with the Corporation market for foreign cattle, occupying thirty acres on the site of the old Admiralty dockyard, where a tablet commemorates the fact that Peter the Great once worked here as a shipwright.

Immediately beyond Greenwich Pier rises **Greenwich Hospital** on the river terrace, and behind it are Greenwich Park and Observatory.

Steering to the north, down Blackwall Reach, with Greenwich Marshes on the right, and on the left, farther on, Blackwall and the East India Docks, the steamer passes **Blackwall Pier**. At the same side of the river is Bow Creek, by which the Lea enters the Thames; and close by is Trinity Wharf, belonging to Trinity House. Farther on are the **Royal Victoria Docks**, continued on the east by the **Albert Docks** with the workmen's quarters of **Canning Town** and **Silvertown**; and just beyond Charlton Pier is **Woolwich** and its noted arsenal.

The town of Woolwich is chiefly important on account of the Royal Arsenal, employing some 12,000 men, whose wages exceed £72,000 a month. This establishment may be said to date from 1585, when Queen Elizabeth had a store of arms and armour at the Tower House, a mansion in Woolwich Warren, adjoining the then boggy and unhealthy marshes of Plumstead. Prince Rupert protected the King's Warren with batteries in Charles II.'s reign, and other fortifications were added by that king's successor. The Dutch had several times threatened the dockyards here and at Chatham, and in 1695 two French privateers were captured off Woolwich. These fortifications have now disappeared. Towards the end of the seventeenth

century the proof of ordnance was transferred from Moorfields to Woolwich, guns began to be cast there, carriages constructed, and powder stored. From these works grew the three great departments of the Royal Arsenal called respectively the Royal Gun Factories, Royal Carriage Department, and Royal Laboratory. But these names were not given until after the second visit to the Warren of George III. in 1805. The establishment then rapidly grew in importance. From 42 acres, the ground covered by it extended to some 300. Guns of all sizes, every form of military wagon, shot, shell, torpedoes, cartridges, bullets, war-signal and life-saving rockets, tubes, and fuses have since always been produced there, small arms being made at Birmingham, and Enfield, in Essex, and powder, gun-cotton, and other explosives at Waltham, in the same county. The wharves were enlarged by convict labour. A canal first, and then lines of railway were constructed, together with piers and powerful steam and hydraulic cranes. Extensive practice ranges also were added in the Plumstead Marshes, which had been carefully drained and embanked against the river. Machinery of the best and most modern type fills the workshops, and immense quantities of all kinds of warlike stores are collected, ready for issue to either the Army or Navy of the Empire. As this establishment is the only Government gun-factory, its importance cannot be overrated.

The garrison of Woolwich consists of a major-general commanding, with his staff, the headquarters of the Royal Regiment of Artillery, of the Ordnance Store Corps, and of the Army Service Corps, some thirteen batteries of artillery, one infantry battalion, a strong body of volunteer artillery, and a battalion of rifle volunteers, together with a considerable number of men of the departmental corps. The barracks occupied by the troops are very imposing buildings. The Herbert Hospital, built soon after the Crimean war at the south end of Woolwich Common, is one of the largest military hospitals in Great Britain. The common itself, nearly half a square mile in extent, forms an excellent drill-ground. At its south-west corner there is a hut camp for two field batteries, and opposite to it the handsome buildings of the Royal Military Academy. This, the oldest military school in the kingdom, dates from 1741, when forty cadets were quartered in the arsenal for training in artillery and engineer duties. In 1806 the building on the common was occupied by some 150 cadets, a number which increased at one time to as many as 280. All are destined for the Royal Artillery or Royal

Engineers. Another military educational establishment at Woolwich is the Artillery College, for giving special training to officers of the Royal Artillery in order to fit them for appointments in the manufacturing departments of the Royal Arsenal, etc. It is located in the red barracks, built originally as a hospital for the Marines, one division of which corps was quartered at Woolwich until 1869. In this year the Royal dockyard at Woolwich was closed, as it was found unsuitable for modern ships of war, but it continues to be used as a military store dépôt. It was the first, and for a long time the principal, dockyard in the kingdom. The *Great Harry* was built there in 1562, the *Royal George* in 1751, the *Galatea* in 1859, and more than 200 other ships.

At the north-west end of the common is the Repository, enclosed with a breastwork, and containing drill sheds and materials for shifting heavy guns, building military bridges, etc., and the Rotunda Museum of military antiquities and models. Part of the Repository enclosure is laid out as a pleasure ground. Close to the Rotunda is a small observatory belonging to the Royal Artillery Institution, which is itself part of the artillery barracks, and contains a natural history museum, a valuable library, many military relics, and a lecture hall for the discussion of papers on military subjects.

Returning from Woolwich to Greenwich, the afternoon will be spent in visiting its chief points of interest.

Overlooking the Thames, and in the immediate vicinity of the Royal Hospital, are those noted waterside hotels which have become celebrated for public dinners, and particularly for whitebait. The chief of these taverns are the "Ship," a little to the westward of the hospital, the "Crown and Sceptre," and the "Trafalgar." At what period "the lovers of good living first went to eat whitebait at the taverns contiguous to the places where the fish is taken" is not very clear; at all events, the houses did not resemble the "Ship" or the "Trafalgar" of the present day, these having much of the architectural pretensions of a modern club-house. The old "Ship" was built with weather-board fronts, with bow windows so as to command a view of the river; now an imposing pile has been erected in its place. Every year the approach of the Parliamentary session is indicated by what is termed the "Ministerial Fish Dinner," in which whitebait forms a prominent dish and Cabinet Ministers are the company. The dinner takes place at one of the principal taverns—the dining-room being decorated for the occasion—and partakes rather of the nature of a State banquet.

After partaking of a fish luncheon at the "Ship," visits will be made to Greenwich Hospital and Greenwich Observatory.

Greenwich Hospital occupies the site of an old royal palace, in which Henry VIII. and his daughters, Mary and Elizabeth, were born, and where Edward VI. died. The first idea of its foundation is said to have originated in 1692, after the great naval victory of La Hogue; it was then proposed to raise a suitable monument as a mark of the gratitude which England felt for her sailors. According to the Latin inscription which runs round the frieze of the hall, "The pious regard of Queen Mary dedicated this palace of Greenwich for the relief and maintenance, at the public expense, of those seamen who have protected the public safety in the reign of William and Mary, 1694." The hospital consists of four distinct piles of buildings, all of which are quadrangular, and named according to the respective sovereigns in whose reigns they were built. King Charles' building, to the west, was erected in 1664, from the original design by Inigo Jones. On the other side of the square, towards the east, is Queen Anne's building. To the southward of these are King William's building, containing the Great Hall, and Queen Mary's building, containing the chapel. The last three were from designs by Christopher Wren. The Great Hall is remarkable for its painted ceiling, a work carried out by Sir James Thornhill in 1707-27. It contains several valuable pictures of great naval battles and of the heroes who fought in them; there is still preserved the coat which Nelson wore when he was shot at Trafalgar. The chapel is a fine specimen of Greek architecture; it was restored in 1789 from designs by James Stuart. A statue of George II. by Rysbrach adorns the central square.

The first pensioners were received in the hospital in 1705; these numbered 100. In 1814 the maximum number was reached—2,710. In 1763 out-pensions were granted from the funds. In 1849 the number of in-pensioners began to decrease, until in 1865 they only numbered 1,400. For some time the in-pensioners had been discontented with their manner of living at the hospital, and in 1869, when they had the option of receiving a grant of money in lieu of their board and lodging, a very large majority preferred to take the money and go to their friends. A few old or bed-ridden men were transferred to the various naval hospitals and the Seamen's Hospital Society, to be maintained at the expense of Greenwich Hospital Fund. Greenwich Hospital was thus disestablished by the votes of the very men for whose benefit it was originally founded. The

revenues of the hospital are derived from different sources, the principal of which are gifts by King William and the original commissioners, the rental of the forfeited estates of the Earl of Derwentwater, contributions of the seamen and marines of His Majesty's fleet, as well as those who have served in the mercantile marine. Large sums have been acquired from unclaimed prize-money and fines. The annual income of the hospital is £167,259. From this sum numerous pensions are paid; 1,000 boys, the sons of seamen and marines, are maintained and educated at Greenwich Hospital Schools, at an average cost of £23,000 per year; gratuities are granted to widows of seamen and marines; and fifty children of officers who have died receive grants for their education. It is estimated that 9,000 persons, exclusive of the children mentioned, derive benefit from the funds.

In 1873 Greenwich Hospital became the college for the Royal Navy, and all naval officers belonging to the combatant branch are now compelled to take part of their training at Greenwich. A certain number of the engineer officers also go through a course of study at the Royal Naval College.

The **Naval Museum** contains many objects of interest connected with the Navy, such as models of ships, both ancient and modern, specimens of guns, torpedoes, and ammunition, plans of British dockyards, relics of Sir John Franklin's expedition, and last, but not least, the famous original Chatham chest, established at Chatham by Queen Elizabeth in 1588 for the relief of wounded and decayed seamen, and removed thither in 1803.

Another national institution at Greenwich is the Royal Observatory, which crowns the hill that rises in the park behind the hospital—a park which is a favourite resort of Londoners and holiday-makers generally. **Greenwich Observatory** occupies the site of a tower commonly called Greenwich Castle, built by Duke Humphrey, used as a habitation for the younger branches of the royal family, sometimes as a prison, occasionally as a place of defence. After the Restoration John Flamsteed was appointed by Charles II. "our Astronomical Observator," the royal warrant enjoining him forthwith to apply himself with the utmost care and diligence to rectifying the tables of the motions of the heavens and the places of the fixed stars, in order to find out the necessary longitude of places for the perfecting of the art of navigation. For this he was to receive the munificent sum of £100 per annum. Upon the advice of Sir Christopher Wren, Greenwich Hill was

chosen for the site of the Observatory. The old tower was demolished, and the new building begun in 1675.

It was handed over to Flamsteed, who began his observations totally unprovided with instruments at public expense, bringing with him such instruments only as he had himself contrived. His zeal overcame all obstacles, and even during his lifetime the Observatory rose to the first rank among similar institutions.

Flamsteed was succeeded by Dr. Halley, who fixed a transit instrument, the introduction of which was one of the most important steps that had yet been made. Dr. Bradley succeeded Halley, and this eminent astronomer made a most valuable series of observations extending over the twenty years during which he held the post. He died in 1762, and was succeeded by Dr. Bliss, after whose death in 1764 the office devolved upon Dr. Maskelyne, an astronomer who for nearly fifty years performed the duties with wonderful assiduity. He, it was, who first suggested the publication of the *Nautical Almanack*, a work indispensable to seamen, of which he edited no less than forty-nine volumes.

In 1767 an order was issued by George III. that the observations made at Greenwich should be published under the superintendence of the Royal Society, and since then they have been published annually by that learned body. Maskelyne died in 1811, leaving behind him an enviable reputation.

He was succeeded by Mr. John Pond, who held office till 1835, when ill-health compelled him to resign. During his directorship the Observatory acquired that organisation which it has since retained, and which was necessary to enable it to meet the demands made upon it by the requirements of modern science. On his resignation, Sir George Biddell Airy, then director of the Observatory at Cambridge, was appointed to the vacant office; under his presidency the Observatory was gradually augmented and brought to its present complete and perfect condition—old instruments were laid aside and new systems introduced. Sir William Henry Mahoney Christie, K.C.B., succeeded him as Astronomer Royal in 1881, and at the present day every improvement that modern science could supply, and every appliance that modern mechanical skill could contrive have been made subservient to the utilitarian principles of the Observatory. As a building, Greenwich Observatory has little to recommend it; it was not intended for show but for work; it was constructed in haste chiefly with the materials of the old Tower and some spare bricks that lay available at Tilbury Fort.

Members of the Society of Chemical Industry will be conducted through the various parts by competent guides who will fully explain the mechanism and use of the several instruments.

The Lord Mayor will in the evening hold a reception at the Mansion House.

The Mansion House is the official residence of the Lord Mayor of London, and was built on the site of the old stocks market in 1739. It is an oblong building and at its farthest end is the Egyptian Hall. It is possible for 400 guests to dine in this banqueting room, which was designed by the Earl of Burlington from the description of an Egyptian chamber given by Vitruvius. All the great banquets, public and private, given by the Lord Mayor take place here, and there are also fine ball and reception-rooms. At the close of the exhibition of 1851 the Corporation of London voted £10,000 to be expended on statuary for the adornment of the Mansion House; there is also a fine gallery of portraits and other pictures.

The Mansion House is too modern to possess much historic interest; but the Wilkes' riots frequently took place in the neighbourhood during the mayoralty of Wilkes' friend Brass Crosby.



WEDNESDAY, JULY 12.

—♦—
VISIT TO WINDSOR.

The members of the Society of Chemical Industry and their friends will leave for "Royal Windsor" from Paddington (10.18 a.m.), the fine terminus of the Great Western Railway. This station has its entrance opposite Eastbourne Terrace; the front of the building, facing the Praed Street station of the Metropolitan Railway, is utilised as a very large and handsome hotel built in the Louis Quatorze style, from the design of Mr. Hardwick. The journey down is moderately interesting, more especially on



WINDSOR CASTLE, FROM THE THAMES.

approaching **Langley**, which has an old church, the south porch of which contains an interesting parish library, established by Sir John Kederminster in the reign of James I. The walls of the library are carved and painted in late Jacobean style, and the doors of the cupboards are adorned with views of Eton and Windsor as they were in the early seventeenth century. Tradition says that Milton, whose home was not far from here, was in the habit of studying in this library, and his chair is still shown.

At **Slough** the towers of Windsor come into sight. This town is interesting from the fact that it is connected with Sir William and Sir John Herschel, the celebrated astronomers, who made many of their important discoveries in their observatory at Slough. Just before reaching Windsor the train crosses the Thames, passing the world-renowned Eton College on the right.

On arriving at Windsor a reception will be held by the Mayor, Sir William Shipley, in the Town Hall. This **Guildhall** was begun in the year 1686 by Sir Thomas Fitts, surveyor to the Cinque Ports, and finished by Sir Christopher Wren. It is a plain but not unattractive building in the Renaissance style, supported by columns and arches of Portland stone, and ornamented by wreaths of flowers. The ground space is used by the farmers as a corn exchange. This hall, in which the public business of the borough is transacted, contains some fine portraits. Among them are nearly all the British Sovereigns, from Queen Elizabeth to the present time, with one of William Pitt by Gainsborough. In the council chamber also is a marble bust of Charles Knight, who was born at Windsor in 1796, and whose long life was spent in bringing good literature within the reach of the people. There is some fine tapestry here, too, from the Old Windsor Tapestry Works, which Queen Victoria revived. In 1707 the Corporation placed a wooden statue of Queen Anne, then very popular with Windsor people, in a niche on the north side of the Guildhall, with an inscription which was intended as a compliment to her Majesty, but which in reality reads as though it were a satire. Six years later Sir Christopher Wren presented the town with a companion statue of Anne's consort, Prince George of Denmark, which was placed in the niche on the south side.

The **White Hart Hotel**, where luncheon will be served (2 p.m.), is supposed to stand on the site of Shakespeare's well-known "Ye Olde Garter."

Windsor Castle.

Windsor Castle is associated in our minds with ideas of magnificence and grandeur rather than—as is the case of the Tower of London—with those of gloom and horror. It has been, since the days of the Conqueror, the most favoured among the homes of the monarchs of England, and each in turn have vied with one another in adding to its beauty and pride. Now it is one of the finest palaces in Europe.

Its foundation traditionally goes back to the days of King Arthur, who, it is said, convened the Knights of the Round Table here. Mythical as this may be, it is stated, on the authority of Froissart, that Edward III. constructed the Great Round Tower of the Castle and founded the Order of the Garter in emulation of the Early British king. William I., struck with its beauty and the facilities for hunting which it afforded, was the first to erect a residence on the same hill as that on which the Castle now stands, and although no remnant or even description of this house remains, we can imagine it to have been a grim, massive keep, surrounded by its ditch and moat—very different from the successive rebuildings and enlargements of later kings. Edward III., Edward IV., Henry VIII., Elizabeth, Charles, William III., and Anne have in turn all contributed to the erection of a palace worthy of England's King. But it is to George IV. that the Castle of to-day owes its uniformity. During his time Sir Jeffrey Wyatville was entrusted with the work of superintending a complete restoration, and enormous sums of money were voted for the purpose. For seven years alterations and additions were effected on such a gigantic scale that the whole Castle was completely changed. It was at this time that the Round Tower was extended and the private apartments and the splendid corridor added. In the reign of the late Queen, too, alterations and improvements were extensively carried out, the Royal Stables and Riding School were built, while the Curfew Tower, Chapter Library, Norman Tower, Lord Chamberlain's Tower, were either rebuilt or completely restored.

The Castle stands in the Home Park, or "Little Park," which stretches to the Thames and is four miles in circumference; this again is connected with the Great Park, which contains an avenue of trees three miles in length. This district is the centre of an agricultural country of unsurpassed beauty, and many days could be spent in exploring the neighbourhood, which presents (even in these days of cycles and motors) many an old-world picture of English rural life; here may yet be found old picturesque homesteads and villages belonging to the England of 300 years ago, which have yet escaped the ravages of the modern builder. But the visitor of a day cannot make excursions to the fair scenery and lovely reaches of the upper Thames—to Maidenhead, Marlow, and Henley. He cannot visit Virginia Water, Magna Charter Island, Old Windsor, Ascot, Burnham Beeches, Stoke Poges—he must be content with the magnificent view which, if the

day be clear, can be obtained from the top of the Round Tower, a view which comprises the Chiltern Hills, the Crystal Palace, and the Vale of the White Horse.

Approaching the Castle from the High Street, Castle Hill is seen almost opposite, and proceeding up this, past the Jubilee Statue of Queen Victoria, **Henry VIII.'s Gateway**—the main entrance to the lower ward—is reached. Henry VIII.'s badges—the Tudor rose, the portcullis, and the *fleur de lis* (a remnant of the pretensions of former English monarchs to the French throne)—are yet to be seen on its front. This gateway gives admittance to the quadrangle of the **Lower Ward**, round which are ranged the Round Tower, the fine south side and entrance to St. George's Chapel, the guard room battlements, Garter Tower, and the residence of the military knights. These **Military Knights** are the modern representatives of an order dating back to the institution of the Order of the Garter, with which they are closely connected. After creating the Order of the Garter Edward III. established a Subsidiary Order of Poor Knights to "provide relief and comfortable subsistence for such valiant soldiers as happened, in their old age, to fall into poverty and decay." Elizabeth called them "The Poor Knights of Windsor," and it was William IV. who changed the appellation. Their number was originally twenty-four, and they were elected by the Garter Knights; now they number eighteen, and the central edifice of their dwellings is called Garter House. Across the quadrangle (called the Castle Yard), through the quaint Gateway Tower, are the charming old-world **Horse Shoe Cloisters**, which are the residences of the lay clerks of St. George's Chapel, and face the main entrance to the church.

Standing near these cloisters is the famous old **Curfew Tower**, considered to be the oldest part of the Castle, having been erected by Henry III. Many a prisoner has perished in its crypt, which is said to have been connected by a subterranean passage with Burnham Abbey, three miles away. A peal of eight bells of different ages, dating from 1614-1745, is hung in the belfry and rung on Royal birthdays and State occasions.

Access to the **Albert Memorial Chapel** can be obtained by passing from Castle Yard through an old Gothic doorway. This chapel is one of the artistic masterpieces of the Castle, and it will repay the visitor to spend some time on its inspection. It has had a varied and chequered existence since its foundation by Henry VIII., who, having himself abandoned it for Westminster, gave it to Wolsey for his own mausoleum ;

this minister, however, fell under the ban of Henry's displeasure before it was completed. Charles I. further embellished it, but when the Parliamentary forces obtained possession of the castle it was defaced and practically destroyed, "the plunder" being sold for £600. The great sarcophagus of black marble which Wolsey had provided escaped, and was ultimately removed in 1805 by George III. to the crypt of St. Paul's, where it now covers Nelson's remains.

After the death of the Prince Consort the late Queen had the building restored and beautified, and converted it from "Wolsey's Chapel" to the "Albert Memorial Chapel." No expense was spared, and the most talented artists of the day were employed to decorate and emblazon the interior. The vaulted roof is covered with mosaic figures, ornaments, and inscriptions; the walls are marvellously panelled with a series of mosaic "pictures in marble," depicting well-known scenes of sacred history. These were executed by Baron Triqueti, who employed a process of etching on marble and pouring in coloured cement to supplement the various tints of the twenty-eight distinct kinds of marble used in their production. The floor, too, is artistically paved with various coloured marbles, notably the red and grey species from the Ipplepen quarries, near Torquay. The many stained-glass windows are very fine. The east window portrays twelve incidents of the Passion; those on the north and south sides contain life-size figures, with their armorial bearings, of the ancestors of Prince Albert from the year 803. The reredos illustrates the Resurrection of Christ, and is surmounted by a Greek cross 13 ft. high. The altar is formed of one slab of Levanto marble, while the panels of Derbyshire and Connemara marble are covered with symbols of the Passion.

The chapel contains the tombs of the Dukes of Albany and Clarence, while at the eastern end is the Prince Consort's cenotaph, which is of black and white Tuscan marble. The angels at the corners support shields bearing the arms of Queen Victoria and the Prince. The panels, which are made of Sicilian and Parian marble, portray figures of Hope, Piety, and Charity on the south side, and Truth, Honour, and Justice on the north. The figure at the west end represents a widow praying, and that at the east end Science weeping. A marble effigy lying on the top of the monument represents the Prince in chain armour, wearing the mantle, chain, and badge of the Garter, while his favourite dog Eös rests at his feet.

"Albert, the Prince Consort; born August 26, 1819; died

December 14, 1861. Buried in the Royal Mausoleum at Frogmore. 'I have fought the good fight; I have finished my course' " is the simple inscription on the cenotaph.

St. George's Chapel.—On entering Castle Yard by Henry VIII.'s Gateway the fine exterior of St. George's Chapel with its "perpendicular" stained-glass windows directly claim attention.

It is probable that it occupies the original site of that chapel built by Edward III. in connection with his newly-founded Order of the Garter and dedicated to his patron saint "St. George of Merrie England," but the present structure was not begun until Edward IV.'s time, and is indebted to Henry VII. and Henry VIII. for its present fine dimensions. As in the case of many other portions of the castle the destruction carried on by the armies of the Commonwealth rendered extensive restoration necessary when Charles II. again came back to Windsor. When improvements were being effected in the time of Queen Victoria the utmost care was exercised in order to preserve the building in its original form so that the chapel might still present the appearance of its first design, cruciform in plan with eight side chapels or chantries named after their founders.

The main entrance by the west door is only used on State occasions (as in the case of the recent marriage of Princess Margaret of Connaught), and the nave of the church is usually entered by the south door.

Poynter considers that the main vaulting of St. George's Chapel is perhaps without exception the most beautiful specimen of the Gothic roof in existence. The arms displayed on the bosses of the ceiling are those of the sovereigns and nobles who from time to time have been connected with the chapel. The roof of the choir is similar to that of the nave, but the arms there shown are those of the Prelate of the Garter and the various knights belonging to the Order. The nave contains three notable monuments—one to the Duke of Kent, the grandfather of the King; one to Leopold I., King of the Belgians; and beneath the third window of the north aisle, one to George VI., the last King of Hanover, who succeeded to the throne because his cousin Victoria was precluded through the enforcement of the Salic Law; his kingdom was finally absorbed into the Empire of Germany.

At the western corners of the nave are two chapels. **Beaufort Chapel**, on the south, founded by Sir Charles Somerset, who was created a knightly baronet of the Garter by Henry VII., contains his tomb and memorials of his descendants; the

three windows their arms, the central opening of each containing a red rose with the motto "Fair le doy." The **Arswick Chapel**, off the north aisle, is called after Christopher Arswick of Henry VII.'s day. In this chapel stands one of the finest pieces of sculpture to be seen in the castle.

It is the national monument erected to the memory of Princess Charlotte Augusta, George IV.'s only child, and heir-presumptive to the throne. She was the wife of Leopold, King of the Belgians—whose monument stands at the entrance to this chapel—and died a short time after their marriage. This cenotaph is divided into two: one portion portrays the earthly form of the deceased princess lying upon a bier, the other is supposed to represent the ascent of her spirit supported by two angels, one of them carrying her dead child. In the end of the north transept is formed the **Rutland, or Ros Chantry**, founded and probably erected by Sir Thomas St. Leger for the interment of his wife, Anne Duchess of Exeter, sister to Edward IV. This chapel contains a large number of monuments.

Opposite to this in the south aisle is the **Braye Chapel**, built by Sir Reginald Braye, Prime Minister to Henry VII., and one of the Garter Knights; he was buried in this chapel, but it contains no monument to his memory. The screen, however, contains his arms, surmounted by the Garter, and in its centre is his name in large brass letters. Above it hangs the sword of a descendant of his, Captain Wyatt-Edgell, who, had he lived, would have been Lord Braye; he it was who recovered the body of the Prince Imperial in Zululand, the monument to whom, in the centre of the chapel, was erected by Queen Victoria. In this chapel also there are many other monuments of interest.

The nave and transepts are separated from the choir by the organ and its screen; the latter was designed by Evelyn, while the former—erected in 1790, but from time to time altered and improved—is said to be one of the finest choir organs in existence. The choir is slightly raised above the nave, and looked at from beneath the organ gallery is very splendid. Here to the right and left are the stalls of the Knights of the Garter carved in exquisite workmanship, each with mantle, crest, and sword of its occupant beneath the wooden canopy; over this floats his banner, while a plate bearing his name, title, and arms is fixed at the back of the stall.

The **seat of the Sovereign** under the organ gallery has specially fine carving and is distinguished by its royal curtains.

The altar, the reredos, the stained glass windows, all of the very best workmanship possible, add to the beauty of the whole.

To the north of the altar is **the Royal Pew**, originally intended for the accommodation of the Queen and the ladies of the Court at an installation, was by George III. fitted up for the use of the Royal family at public service. Beneath this are the iron gates, said to be the work of Quentin Matsys, of Antwerp, which formerly stood on the tomb of Edward IV. in the north aisle and which, until they were despoiled by the Parliamentarians, were decorated with that king's coat of mail, richly embroidered with rubies, pearls and gold.

The Hastings Chantry, the Chapter Room, the Lincoln Chantry, the Oxenbridge Chantry, Oliver King's Chantry, are ranged round the north and south aisles of the choir, and are full of monuments to those who have in some way been connected with Windsor or its occupants in the past.

St. George's Chapel is pre-eminently the church of the Royal Family. It is here that they love to celebrate their christenings and marriages, and it is here that the final service is held over their bodies.

The very latest Royal function that has taken place in this time-honoured and historic church was the marriage of Princess Margaret, the elder daughter of the Duke of Connaught, to Prince Gustavus Adolphus of Sweden and Norway.

The State Apartments.—The magnificent suite of rooms bearing the above name is situated on the first floor of the buildings, on the north side of the quadrangle, and the visitors' entrance is in King John's Tower. "There is no greater treasure-house of all that is good and beautiful in art manufacture than Windsor Castle," says Mr. Ernest Jessop. Space does not here permit of even cataloguing this marvellous collection of pictures, furniture, plate, bronzes, china, and statuary with which the rooms are actually crowded, but members of the Society who visit the Castle will be accompanied by competent guides, who will give ample information concerning all that is shown.

The Goldsmiths' Hall.

The annual dinner of the Society will be held in Goldsmiths' Hall, Foster Lane, Cheapside. The hall of the Goldsmiths'

Company was designed by Philip Hardwick, R.N. The old building was taken down together with some adjacent houses in 1829. The new hall was opened with a splendid banquet on July 15, 1835.

The Goldsmiths existed as a guild from an early period; they are mentioned as a guild in 1180, but were not incorporated before 1327. Pursuant to various charters and Acts of Parliament, the Goldsmiths' Company possesses the privileges of assaying and stamping all articles of gold and silver manufacture. The assays in one day are over 150, and are conducted as follows :

They scrape a portion from every piece of plate manufactured and send it to their assay master. If found true to the standard qualities the articles are passed, if what is called of "deceitful work" they are destroyed. These standard scrapings are afterwards melted down and assayed by the Company to whom they belong. This last assay is a sort of pyx by the Company on the practice of its assayers. The hall mark, stamped on the several articles assayed, consists of the Sovereign's head (first added in 1784), the Royal lion, and the letter in the alphabet which marks the year of the Sovereign's reign when the assay was made. The company derives no pecuniary profit from their assay offices, the charge being barely sufficient to pay expenses. In the trial of the pyx—the official testing of the coinage issued from the Mint—the Goldsmiths' Company appoint the jury of freemen of the Company, and carry through the assaying operations in their own laboratory within the hall.

Goldsmiths' Hall is a completely isolated building ; the exterior a noble specimen of Mr. Hardwick's abilities, bold and well proportioned throughout, but unfortunately shut in by other buildings. Inside, beyond the vestibule, a superb marble staircase lined with sculpture leads to galleries, corridors, court, meeting, and dining rooms ; a sumptuous drawing-room and a still more sumptuous hall in which are held the State banquets for which the Company is famous. There are innumerable features of interest in all these apartments.

In the livery tea-room there is a conversation-piece by Hudson ; in the committee room, the original portrait by Jansen, of a livery-man of the Company, the celebrated Sir Hugh Myddelton who brought the New River to London, and a portrait of Sir Martin Bowes with the cup he bequeathed to the Company standing on the table before him (Queen Elizabeth is said to have drunk out of this cup at her coronation, and it is still preserved) ; also a

Roman altar exhibiting a full-length figure of Apollo in relief, found in digging the foundations for the present hall. In the livery hall may be seen full length portraits of Queen Victoria, Queen Adelaide, and the Prince Consort ; also marble busts by Chantry of George III., George IV., and William IV., and Storey's fine statues of the Sibyl and Cleopatra. The treasure of plate should also be examined.

In the time of the Long Parliament the Committee of Sequestration on the Estates of Royalists sat in Goldsmiths' Hall. It was then known among the Cavaliers as Squeezing Hall, and in literature is mentioned as such.

The Goldsmiths' Company is very wealthy, and expends a large portion of its income in benevolent purposes. As trustees for various charitable endowments it distributes nearly £12,000 annually, and from its own funds seldom less than £20,000 more. It assists local charities, makes gifts to poor freemen and their widows and orphans, allots pensions, aids schools, makes munificent grants to such objects as the Technical Institutes, pressing occasions of distress arising from famine, accidents, and the like, and has founded no fewer than seventy-six exhibitions to the universities of Oxford and Cambridge. The company has also endowed the Goldsmiths' Company Institute, which was purchased from the Royal Naval Schools, and is one of those institutions lately taken over by the London University.

The ladies' dinner, also attended by members of the Society, will take place at the Café Royal, one of the best known West-End restaurants. Our former President, Sir William Ramsay, K.C.B., F.R.S., will preside.



THURSDAY, JULY 13.

VISIT TO HASLEMERE.

At 10.18 on Thursday morning we leave Waterloo Central Station, No. 3 platform, for Haslemere, Surrey—a county far-famed for the beauty of its scenery. Surrey is traversed from east to west by the North Downs, which near Titsey on the Kentish border rise to 880 ft. On the north side of this range the land slopes gradually to the banks of the Thames, but on the south the descent is rugged and broken up before the level of the Weald is reached. South of the main range and about five miles distant from Dorking is Leith Hill (967 ft.), the highest point in the county, whilst in the extreme south-west rises Hindhead, looking down on Witley, where George Eliot once made her home, and on Aldworth, the retreat of Lord Tennyson. From these heights glorious views are to be obtained, a noticeable feature in the landscape being the prevalence of commons and heath lands scattered throughout the county. Although to the south of the Downs the land is of poor quality, consisting mostly of sand and chalk, it is well wooded and studded with a number of quaintly-timbered old houses. It is in the midst of this charming country that Haslemere is situated and Lythe Hill, the residence of our host and hostess, Mr. and Mrs. Richard Garton.

The house, beautifully situated on the southern slope of Blackdown, stands on the site of Denby Hall, an old mansion dating from 1730. The property was acquired by the late Mr. Stewart Hodgson, and in 1870 the old house was replaced by the present fine mansion, designed by Geo. Aitchison, A.R.A. The house is in the Queen Anne style in red brick, with terra-cotta dressings and panels and mullioned windows; it is a fine building, well suited to its lovely surroundings. The entrance, by a drive from Haste Hill behind and above Haslemere, is from a courtyard and covered archway. Along the red-brick wall of the courtyard is a fine frieze carved in high-relief representing a stag hunt, by S. Pepys Cockerell, and under the entrance archway is an effective fresco by the same artist.

The interior of the house is very artistic in character. The large and handsome entrance hall is panelled in oak, with ceiling to match, and has a frieze running round the walls representing agricultural scenes with life-size figures, the characteristic work of the late Stacey Marks, R.A. The reception rooms contain good examples of the work of Pepys Cockerell, A. Gilbert, A.R.A., and Sir William Richmond.

The house, standing on a large plateau on the slope of Blackdown, at an elevation of about 650 ft. above sea level, commands a magnificent and extensive view over the Weald of Sussex, the beauty of whose landscape is well known.

The pleasure grounds and park of about 1,400 acres are very beautiful and varied in character, extending from nearly



LYTHE HILL HOUSE.

the top of Blackdown (about 800 ft. above the sea) towards Chiddingfold and Lynchmere, and their undulating character, which is their special charm, is shown by the fact that in some parts the level is about 300 feet. A special feature of the park is the varied collection of trees which it contains, Mr. Stewart Hodgson having made it one of his hobbies to collect trees from different parts of the world in his journeys, and the American tree flora is particularly well represented. The Pinetum is very fine, and should be especially noted.

The park is well wooded, the game plentiful, and water (so often wanting in Surrey) adds a charm to the scenery. Above the house, at an elevation of 750 ft., is a cricket-ground, the position of which is probably almost unique, commanding

an even more extensive view of the Sussex Weald than is obtained from the house.

On the estate there are also some picturesque old Surrey cottages; one group, of which an illustration is here given, dates back to the earlier part of the seventeenth century.

Altogether, Lythe Hill, which came into its present owner's possession in 1902, forms an ideal and typical characteristic English country seat.

Adjoining the park is Aldworth, the seat of the late Lord Tennyson.

Alfred, Lord Tennyson was born on August 6, 1809, at Somersby, a little village among the wolds of Mid-Lincolnshire, the rector of which was the poet's father, Dr. George



ALMSHOUSES, NEAR HASLEMERE.

Clayton Tennyson. Dr. Tennyson was more or less a man of marked physical strength and stature, accomplished in fine art—music especially—and in language; in temperament imaginative, merging at times upon gloom. These conditions more or less appeared in his family. Johnson's phrase about his college being "a nest of singing-birds" might be fittingly applied to the Somersby parsonage.

Alfred was the third of seven sons, among whom his two elder brothers, Frederick and Charles, became notable as poets. He himself showed a bent for writing at a very early age, and at thirteen had written a long epic which was an earnest of his later work. In February, 1828, he joined his brothers at Cambridge, where he formed a group of gifted friends who

afterwards fulfilled the promise of their youth. It is to this time that the poems "The Lover's Tale" and "Timbuctoo" belong. His father's death broke off Tennyson's Cambridge residence early in 1831, and in the autumn of that year he made that visit to the Pyrenees recorded in "All Along the Valley." From this time onwards he was beginning to make his name, and after the appearance of a volume of his work published in 1842 his position as a poet was secure.

The year 1850 might be called Tennyson's "Annus Mirabilis." This year, in succession to Wordsworth, brought



ALDWORTH (LORD TENNYSON'S).

him the laureateship, and in it fell the publication of "In Memoriam," that elegiac treasury in which the poet has stored the grief and meditation of many years after his friend's (Arthur Henry Hallam) death; a series of lyrics, which in pathos, melody, range of thought, and depth of feeling may stand with the canzoniere of Petrarch and the sonnets of Shakespeare. In that same year he was married to Emily Sellwood in Shiplake Church, Oxfordshire. Tennyson and his wife now settled at Twickenham on the Thames. In 1851 they went through the Riviera, returning by Milan; in 1852 the great funeral ode upon Wellington was written, and by the close of 1853 the passion for his old country life, freedom and peace, and fair English scenery carried him to Farringford in

Freshwater; there he lived uninterruptedly till 1870, having built, meanwhile, a house for summer and autumn residence—Aldworth—high up on the farther side of Blackdown by Haslemere in Surrey, at once nearer London, in the midst of delightful country, and further from that intrusion which is one of the penalties of fame.

In 1884 Queen Victoria created a barony of the United Kingdom by the style of Tennyson of Freshwater and Aldworth, in favour of her honoured poet-laureate. Lord Tennyson died



TENNYSON'S LANE, HASLEMERE.

at Aldworth on October 6, 1892, and was buried in Westminster Abbey.

The Royal Society.—After returning from Haslemere, a reception will be given by the President and Council of the Royal Society, at 9 p.m., to our American and Colonial visitors.

The Royal Society, Burlington House, was incorporated by Royal Charter April 22, 1663, as the Royal Society of London for the advancement of natural science, Charles II. and his brother, the Duke of York, entering their names as members of

the Society. This celebrated Society (boasting of the names of Newton, Wren, Halley, Cavendish, Watt, Herschel, Davy and Faraday among its members), originated in a small attendance of men engaged in the same pursuits, and dates its beginning from certain weekly meetings held in London as early as the year 1645, "sometimes," as Wallis relates, "at Dr. Goddard's lodgings in Wood Street, sometimes at a convenient place (the "Ball Head" tavern) in Cheapside, and sometimes at Gresham College or some place near adjoining." The merit of suggesting such meetings is assigned by Wallis (himself a foundation member) to Theodore Haak, a German of the Palatinate then resident in London. The Civil war interrupted their pursuits for a time, and Wilkins, Wallis and Goddard removing to Oxford, a second Society was established, Seth Ward, Ralph Bathurst, Dr. (afterwards Sir William) Petty and the Hon. Robert Boyle joining their number and afterwards taking an active part in the furtherance of their views. With the restoration of the King a fresh acquisition of strength was obtained, new members enlisted, meetings were again held in Gresham College, and on November 28, 1660, a resolution was adopted to establish the meetings on a regular basis, the memorandum of this meeting being, according to the Society's historian, "the first official record of the Royal Society." It was agreed, December 12, 1660, to hold the meetings of the Society weekly at Gresham College, where "a subject" was given out for discussion and very frequently experiments were performed. Almost from the first the King showed an active interest in the proceedings, and did the fellows "the favour and honour of offering to be entered on the Society," and on July 15, 1662, granted them a charter of incorporation, and when this was found to have "failed in giving the Society certain privileges essential to their welfare" granted them a new patent, which passed the Great Seal on April 22, 1663, and is the acting charter of the Society at the present day (Weld, *History of Royal Society*). The Society continued to hold its meetings in Gresham College, and after the great fire, by permission of the Duke of Norfolk, in Arundel House. Subsequently the Society returned to Gresham College, but in 1710 removed to Crane Court, Fleet Street, and from thence in 1782 to Somerset House, where apartments had been assigned to them by George III. These being required for Government offices they removed in 1857 to Old Burlington House, and in 1873 to the new east wing which had been erected with especial regard to the

Society's requirements. The meetings of the Society are held weekly from November to June. From among the candidates fifteen are annually selected by the council for election by the members. The letters F.R.S. are the distinguishing mark of a fellow. The patron saint of the Society is St. Andrew, and the anniversary meeting is held every November 30, being St. Andrew's Day. The Scottish saint was chosen out of compliment to Sir Robert Murray, or Moray, a Scot, one of the most active of the foundation members and president of the Society before the charter. When the Society was first established it was severely ridiculed by the wits of the time, "for what reason," says Dr. Johnson, "it is hard to conceive, since the philosophers professed not to advance doctrine but to produce facts; and the most zealous enemy of innovation must admit the gradual progress of experience, however he may oppose hypothetical temerity."

The first president was Viscount Brouncker, the second Sir Joseph Williamson, the third Sir Christopher Wren. Samuel Pepys, the diarist, and seven others, came before Sir Isaac Newton, who, however, retained the chair till his death twenty-four years afterwards. Among its secretaries have been Bishop Wilkins, John Evelyn, Hans Sloane, Edmund Halley, Wollaston, Robert Hooke, Sir Humphry Davy, and Sir John Herschel. The society possesses many interesting portraits, among them being three of Sir Isaac Newton, two of Halley, two of Hobbes, Sir Christopher Wren, Robert Boyle, Samuel Pepys, Lord Towers, Sir R. Southwell, Sir H. Spelman, Sir Hans Sloane, Sir Joseph Banks, Lord Brouncker, Dr. S. Chandler, Sir John Pringle, Dr. Birch, Martin Folkes, Dr. Wollaston, Sir Humphry Davy, Dr. Price, etc.

Among many other objects of note are the silver mace (similar to the maces of the Lord Chancellor, the Speaker, the President of the College of Physicians), presented to the Society by Charles II. in 1662; a solar dial made by Sir Isaac Newton when a boy, and taken from the house at Woolsthorpe; a reflecting telescope, made in 1671 by Newton himself; the original MS. of "*Principia*"; the charter book of the Society, bound in crimson velvet, containing the signatures of the founder and fellows.

The Society possesses a library of considerably over 40,000 volumes, almost exclusively scientific, and has established a Donation Scientific Relief Fund to aid men of science in their researches.

FRIDAY, JULY 14.

**EXCURSIONS TO PLACES OF
INTEREST IN LONDON.**

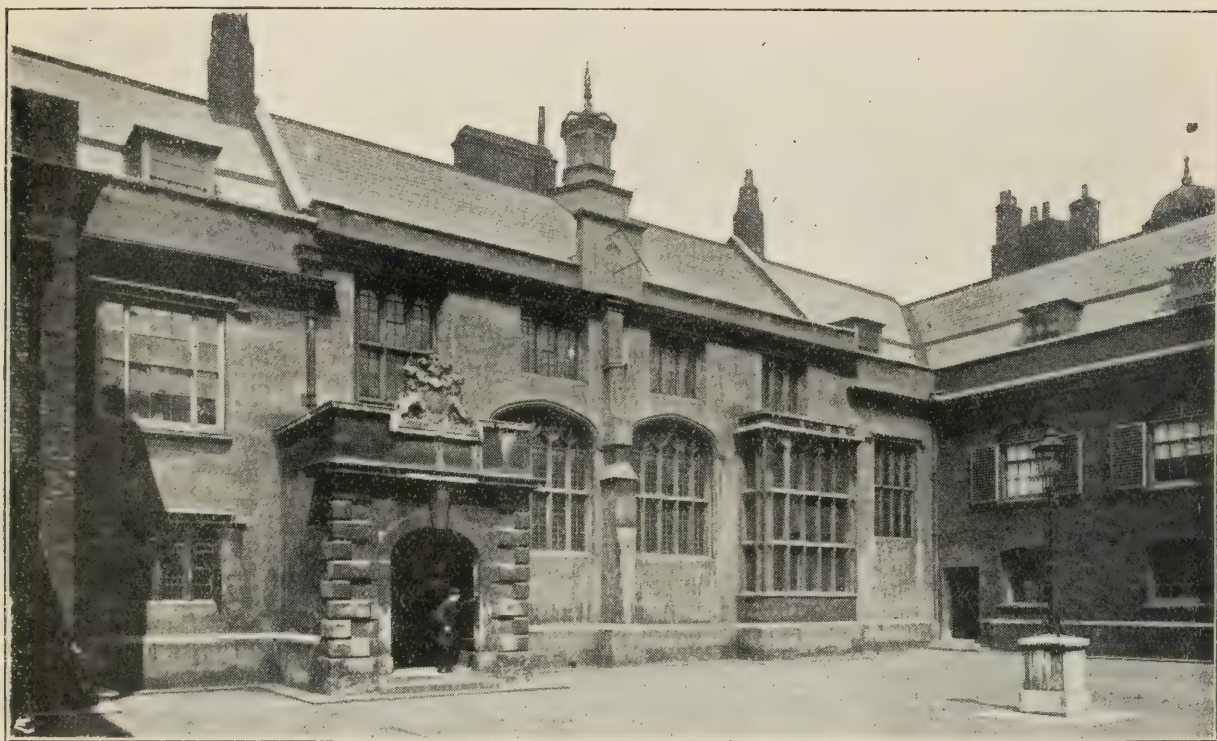
On this day the members and their friends leave the Hotel Russell in conveyances for places of interest in London. Details as to route, time of starting, etc., will be available at the "Bureau of Information" at the Hotel Russell. There will be three separate parties.

- (1) The Charterhouse, St. Bartholomew the Great, St. Giles, Cripplegate, and the Guildhall. Conducted by Mr. T. Tyrer.
- (2) St. Paul's Cathedral, the Tower of London, and Westminster Abbey. Conducted by Mr. C. G. Cresswell.
- (3) Lower Thames Street, Tower Hill, Old City Wall, All Hallows, Barking, St. Olave's, Hart Street, All Hallows, Staining, etc., the Tower of London, and the Guildhall. Conducted by Mr. B. Corcoran.

The Charterhouse.

The name "Charterhouse" is a corruption of the French "Chartreuse." The London Charterhouse was the fourth home of the Order of Carthusian Monks founded in England. The Order was established by Bruno, of Cologne, in 1080, who imposed upon the Order precepts and discipline so severe as to make it all but impossible for the female sex to submit. The Order received numerous gifts, but by reason of the discipline only 172 houses were established, of which only five were nuns'. The London Charterhouse was built in 1371 as a convent for 24 Carthusian monks. The convent was dissolved in 1537, and in 1545 the property was granted to Sir Edward (afterwards Lord) North, who built a residence for himself to the cost of the church. On his death in 1565 the greater part of the property was purchased by the Duke of Norfolk, who constructed for himself a house on the site of the Little

Cloister. His son, the Earl of Suffolk, in 1611 sold it to Thomas Sutton for his hospital (almshouse) for 80 men and 40 boys. Thomas Sutton was a childless millionaire, and the death of his wife turned his thoughts to projecting some great and last work of charity. His determination was fixed by the exhortation of a letter by Hall, Bishop of Exeter; so he bought the Charterhouse of the Howards for £13,000 and petitioned King James and Parliament for licence to endow the present Hospital in 1609. The fortunes or misfortunes of the hospital were numerous, for, when Sutton died, and after the



THE CHARTERHOUSE.

funeral, the chief mourner, one Baxter, laid claim to the whole of the property as heir-at-law. Even Sir Francis Bacon aided this Baxter, and subsequently influenced King James, who wanted money; but he raised his avaricious hand by giving a polite hint that he would accept £10,000 to repair the bridge of Berwick-on-Tweed, which was given him. Again James, at the instigation of his infamous favourite Buckingham, demanded the revenues to pay his army, but was prevented by the determined opposition of Sir Edward Coke. The hospital at last reared its head serene as a harbour for poverty and an asylum for the vanquished in life's struggle. There are several courts—the Masters, the Pensioners, the Preachers—all as green and

cool as if no city was within a stone's throw. The boys in "gowners" increased from 40 to 80, and being boarders, the accommodation became somewhat straitened; so in 1873 the greater part of the grounds at Charterhouse were bought by the Merchant Taylors' Company for £90,000 as a site for their school, which was for day scholars only, and formerly in Suffolk Lane. The Charterhouse School has been removed to Godalming, in Surrey, where accommodation for 100 boarders has been built. The place is full of interest, and after its antiquities—not the least interesting—is the record of eminent Carthusians, memorials to some of which exist—Sir Henry Havelock, Thackeray, Leech, Hullah—and the register contains names memorable in various departments of public life—Richard Crashaw, the poet; Richard Lovelace; Dr. John Davies, Master of Queen's College, Cambridge; Dr. Hilderley, Bishop of Sodor and Man, who translated the Scriptures into the Manx language; Joseph Addison; Richard Steele; John Wesley; Sir William Blackstone; Benson, Bishop of Gloucester; Monk, a bishop, and one of the finest of Greek scholars. The school could at one time claim as her sons Sutton, Primate of England; Lord Liverpool, Prime Minister of England; Lord Ellenborough, Lord Chief Justice; Lord Manners, the Lord Chancellor of Ireland; Baron Alderson; Sir Astley P. Cooper; Sir H. Russel, Chief Justice of the Supreme Court of India; Sir C. Eastlake, President of the Royal Academy; George Grote, the historian; Fox, Earl of Dalhousie; the Right Hon. J. Milner Gibson; Dr. Liddell, Dean of Christchurch; W. G. and F. T. Palgrave; Sir Charles Trevelyan; Sir G. Bowen, and many others. Comparatively recently died the Rev. William Rogers, rector of St. Botolph, Bishopsgate, familiarly known as "Hang Theology Rogers." The visits will include the sixteenth century gate house, upper part rebuilt about 1700; the entrance court, on the right of which is the façade of the house of the Duke of Norfolk and his sons, 1565; the Master's Court, really the quadrangle of the duke's house, occupying the site of the Little Cloister and incorporating a large part of it; the church, of which the east and south wall are original (1371). The ante-chapel is sixteenth century. The arcade, north aisle, Holy Communion table, pulpit, seats in the middle of the church, organ loft, and Founder's tomb are the work of Sutton's trustees (1614). The great hall is early sixteenth century work, and built by the monks as a guesten hall on the north side of the Little Cloister. The music gallery, screens, panelling, are

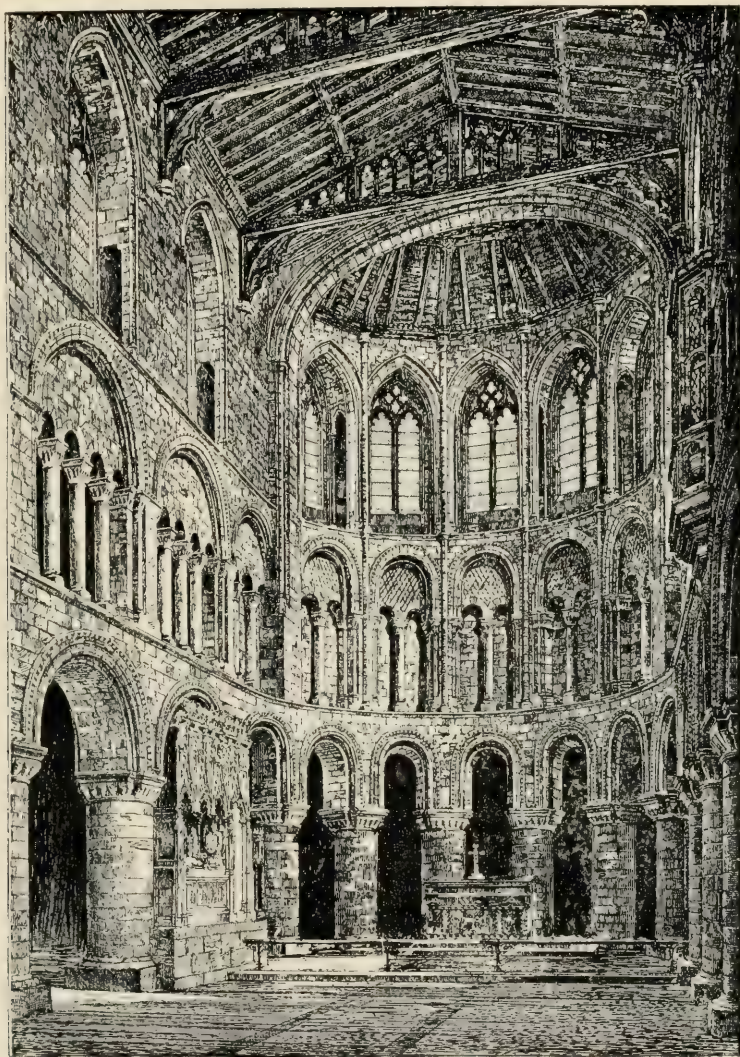
the work of the Duke of Norfolk, who also probably raised the roof and inserted the four upper windows (1571). In this room takes place the Founder's Day dinner, mentioned by Thackeray in the "Newcomes," chapter 37. The scholars' hall is now used as the brothers' library, and was formed out of the two monastic refectories. The monks' cellar is beneath the great staircase which leads to the terrace and chamber; the terrace which overlooks the great cloister; the ante-chamber and great chamber, the Duchess's withdrawing room and the Duke's privy chamber, are all the work of the Duke of Norfolk. The church is not, nor probably the gatehouse. The preachers' and pensioners' court occupied by the brothers' rooms, and three official residences were for the most part built between 1825 and 1830; convent, 1371-1537; Duke of Norfolk and family, 1565-1611; Lord North, 1545-1565; Sutton's Hospital, 1611.

St. Bartholomew the Great, West Smithfield.

This Church, consisting now of the choir and transepts of the Church of the Priory, is the remains of the monastic buildings, which included the cloister, infirmary, chapter-house, refectory, great close, and little close. It is the oldest parochial church now standing in London, and is interesting by reason of the antiquity of its foundation, on account of the legend of its history, and particularly on account of the great quantity of original work yet remaining. The legend is that Rahere, the founder, a courtier of King Henry I., went about the year 1120 on a pilgrimage to Rome, where he was stricken with fever, during which he saw a vision of St. Bartholomew which so influenced him that he devoted himself to religious and charitable callings. By the influence of the then Bishop of London, he founded in 1123 the hospital (near by) and priory of St. Bartholomew, becoming its first prior. A charter of privileges was granted in 1133 by Henry, the interest of which is enhanced by the fact of being witnessed by the most notable men, lay and ecclesiastical, of that time.

The present structure is hemmed in by numerous small streets and houses, a few of which remain in their original state overhanging the footways. The approach from Smithfield (itself in quite recent times the central live cattle market for London, and the scene of the burning of the martyrs—a tablet recording which is erected in the wall of the hospital near this

approach) is through a pointed arch of the Early English period, with dog-tooth ornaments and four gracefully-moulded orders. This way led, after crossing the foot-path, to the churchyard, the site of which was covered by the nave. A new porch in the Perpendicular style, with a figure of Rahere erected in 1893, leads through the base of a



ST. BARTHOLOMEW THE GREAT—SHOWING THE NORMAN APSE.

brick tower built in 1628, in the turret of which is a peal of five bells, among the oldest in London. There are several points of view from which the remarkable beauties of the church may be seen, perhaps the best being that to the north from Rahere's tomb. The restorations of the church, including two new transepts, were from the designs of Sir Aston Webb, who carried out a work of great difficulty with admirable skill, and has added to the beauty of ancient existing architecture by a

beautifully harmonious eastern termination. It reproduces the features of the old work faithfully, while the later clerestory and the slender vaulting shafts carried through it show that no attempt has been made to make the modern work seem ancient. In the broad arch which spans the chord of the apse this architect has preserved a long, slender shaft on each side. At this point a fringe factory long projected into the church. This projection was purchased by the patron of the living, and the apse was rebuilt at his charge in memory of his uncle, sixty-four years rector of the parish.

The crypt is situated beneath the eastern part of the Lady Chapel. It is vaulted by arches of a single span of 22 ft. Until recently it was full of rubbish, but has been excavated and restored. St. Bartholomew contains a number of interesting monuments, the pre-eminent being that of the founder, Rahere, probably carved under the direction of his immediate successor, Thomas of St. Osyth. Some twenty years ago the tomb was opened and the skeleton of Rahere was found within, together with part of a sandal, which is preserved with other curiosities. A more modern monument is that of Sir Thomas Mildmay, 1589, one of Queen Elizabeth's oldest statesmen and the founder of Emmanuel College, Cambridge. Among the remaining monuments are those of Sir Robert Chamberlayne, a great traveller, who perished between Tripoli and Cyprus in 1615; of Sir John Rivers, Lord Mayor of London in 1573; of Edmund Cooke, a learned philosopher and physician; of Thomas Rycroft, printer of the polyglot Bible, containing versions of the Scriptures in Hebrew, Latin, Greek, Chaldean, Arabic, Samaritan, Syriac, Persian and Ethiopic languages; he was Master of the Stationers' Company, and died in 1677. Several other monuments to persons of lesser note exist, but the font is stated to be the identical one at which were baptised William Hogarth and his sisters Mary, 1699, Anne, 1701. The great painter continued his interest in St. Bartholomew's parish, and painted six pictures which embellish the grand staircase of the hospital, near by, the subjects of which include Rahere's dream and Rahere laying the foundation stone, while a sick man is being borne on a bier by the monks. The present rector is the Rev. Sir Borrodaile Savory, M.A.

St. Giles, Cripplegate.

Few of the churches in the City of London, rich as they are in architectural beauty and archæological and historical

interest, can compare with the church of St. Giles, Cripplegate. The sturdy church enshrines the bones of Milton, Frobisher—of Fire and Speed—representative alike of Empire and Freedom. Its registers include the marriage of Cromwell. Rahere, of St. Bartholomew's, had as colleague an old man, Ulfun by name, who, in 1099, is credited with building the church of "Seynt Giles." Of the old church little remains except the basement of the present tower, the original church, with its monuments, having been destroyed by fire in 1545. It was situated near one of the City gates—"Cripplegate." A portion of the ancient City wall is still standing in the church-



ST. GILES, CRIPPLEGATE (as Restored).

yard. There was a ferruginous well here, noted for medicinal use, particularly "to alloy the fumes and bring them to be sober." The open ditch and the practice of throwing offal into the brook accounts for the terrible loss of life in the parish during the plague of 1603 and 1665. In 1603 2,769 dead were buried, and in 1665 no less than 690 burials are recorded from August 29 to September 5. The original registers are worthy of inspection, and remarkable for the clearness and precision of the entries. The charm of St. Giles' is easily understood when the names of some associated with it are recalled. John Foxe, the author of the "*Booke of Martyrs*," was buried in the chancel in 1587. Bishop Andrewes, one of the translators of the authorised version of the Scriptures, was vicar

from 1589 to 1604. Sir Martin Frobisher, one of the heroes of the Armada and first explorer of the Polar seas, who died of wounds received off Brest, November 22, 1594. There is the black marble altar step, on which Cromwell, then a brewer at Huntingdon, knelt when married, on August 29, 1620,



THE CRIPPLEGATE "FOUR SHOPPES" AND QUEST HOUSE.
Removed in 1901 for the Restoration of the Church.

to Elizabeth Bouchier. Then John Speed, who died in 1629, author of a history of Britain, richly adorned with seals, coins and medals, the "Theatre of Great Britain," containing entire sets of maps of the counties, drawn by himself. Then, and chiefest, Milton, the author of "Paradise Lost." A stone slab near the chancel steps marks the place where he was buried,

but the Milton memorial is on the south side. On the Cripple Gate on the north side were the old quest house and shops, which have recently been removed to make room for street improvements, thus adding to the beauty of the exterior and permitting, in the space created, of the erection of a statue of Milton outside the church. The decorations of the church have been added to during the last ten years, and the beautiful carving, which was coated past recognition, restored. The reredos, erected in 1704, has been beautifully restored. The reredos in the Chapel of the Incarnation, with the Moses and Aaron panels, is of the same date. The encaustic tiles on which the altar rests were found beneath the paving of the chancel and probably formed part of the earlier church.

The churchyard contains a very interesting relic of antiquity in the shape of a bastion of the old London wall, which is the most perfect fragment now existing. The entrance gateway to the churchyard bears the date 1660, and, in addition, the names of the churchwardens of that year. The arch is substantially built, has a rounded head, and its squandrels are ornamented with the skull and cross-bones, the hour glass and scythe, the usual symbols of death.

The Guildhall,

where the party will be received by the Chairman of the Library, Mr. W. H. Pitman, and conducted through the buildings by the Librarian and Curator, Mr. C. Welch, may be called the official palace of the London Corporation. It is the scene of its most magnificent festivities and receptions; the meeting place of the Court of Aldermen and of the Common Council; the place where the election of Lord Mayors and Sheriffs and of members of Parliament for the City are held, where its freedom is conferred on distinguished persons, and where very many gatherings of national and world-wide importance have been held.

The Guildhall of the City of London is of unknown antiquity, but there is reason to believe that it was in existence as far back as the twelfth century. An interesting little picture of this old guildhall has been preserved by Robert Fabyan in his *Chronicles*: "In this yere also (1411) was the Gulyde Hall of London begon to be ediffied, and of an old and lytell cottage made into a fayre and goodly house as it now apperyth." As time went on individual generosity did much for the decoration

of the building. The executors of the famous Whittington paved the great hall with "hard stone of Parbeck" while it was beautified in various other ways by wealthy London merchants.

This original Guildhall suffered severely in the great fire of 1666; such considerable damage was done that now only the



THE GUILDHALL.

walls and crypt remain. In 1706 it was repaired, and the present building was erected in 1789 from the design of George Dance, the City architect.

The principal hall is of great dimensions, being 152 ft. long and 49 ft. broad. The citizens meet in it for the transaction of

municipal affairs. Important receptions, such as that of Alfonso, King of Spain, on June 7, 1905, and great City banquets are held there.

The windows are filled with glass representing the principal events in the history of the City, especially those in which the hall itself has been the centre. Many objects of interest may be observed in this room—the monument to Lord Chatham, with its inscription by Edmund Burke; the monument to William Pitt, with the inscription by George Canning; and monuments to Nelson and Wellington. The two wooden figures in the hall, formerly part of the Lord Mayor's Day pageant, are known as Gog and Magog, and represent the two giants said to have assisted the Britons when the Romans made war upon them. They were carved by one Richard Saunders, and set up in the hall in 1708.

The Guildhall has been the scene of many a historic trial—that of Anne Askew, who was burnt at Smithfield in 1546; the Earl of Surrey, the poet, in 1547; that of Lady Jane Grey and her husband in 1553, and many others.

In 1642 Charles I., after his attempt to arrest the five members in the House, attended a common council in the Guildhall and claimed the assistance of the citizens to seize them if they took refuge in the City.

Sovereigns and distinguished personages have attended feasts more or less frequently in every reign.

On November 9 the incoming Lord Mayor gives a public dinner, when the hall is divided into two distinct portions—the upper end or *daïs*, called the hustings, and the lower hall. In the former all the courses are served hot, in the latter only the turtle soup—always a great feature of the banquet.

The loving cup is still passed round, and the barons of beef bring back recollections of mediæval times.

The Courts within the hall are : Court of Common Council, Court of Aldermen, Court of Hustings, Court of Orphans, the Sheriff's Court, Court of the Ward Mote, Court of Hall Mote, and Chamberlain's Court.

The Art Gallery occupies two rooms and contains many valuable pictures by well-known painters. The building for the library and museum was designed by Sir Horace Jones in 1872, and harmonises generally with the Guildhall to which it is attached. There is an excellent reading-room, and the library is a large one, containing a splendid series of volumes, especially the literature which deals with the history of London and its suburbs. Shakespeare's own signature,

attached to a deed of conveyance, is among the curiosities. For this the Corporation gave £147. The muniment room contains the City archives, from the unpretentious slip of parchment which represents the Charter granted by the Conqueror to the City down to the elaborate and expansive legal documents of recent times.

The museum, chiefly of London antiquities, is especially rich in Roman remains; it contains the whole find discovered in excavating for the Royal Exchange, supplemented by others hardly less interesting made in digging for the foundations of the many large buildings since erected within, and several found beyond the City boundaries, including pavements of tesserae, a group of Deæ Matres found in Crutched Friars, a fluted marble sarcophagus from Clapton. Of later date, a large collection of mediæval pilgrims' tokens and the fine Beaufoy collection of tavern and tradesmen's tokens and signboards, the most interesting of which is the carved and painted boar's head from the tavern in Eastcheap, where Prince Henry and Sir John Falstaff played their wild revels.

St. Paul's Cathedral.

In a short space it is impossible to give any adequate idea of the vast architectural greatness of St. Paul's, to enumerate one-half of the memorials of the past which it contains, or to much more than mention its eventful history, from the date of its authenticated foundation to the present day. The chief points of interest will, however, be shown by Archdeacon the Ven. W. M. Sinclair, who has very kindly offered to conduct the party. The guide-books to London invariably devote many closely packed pages to its description. They tell us that it stands on a site on which there has been a succession of churches from the very introduction of Christianity into Britain, that in 610 the first Bishop of London, Mellitus, built a church on the highest ground within the walls of the City. His church he dedicated to St. Paul the Apostle, who first preached to the Gentiles. Some not satisfied with this comparatively modern date state (on somewhat questionable authority) that a temple to Diana previously occupied the spot. It is not until we come to the year 1087, however, that we find, instead of the humbler churches, a more stately cathedral being designed and refounded by Bishop Maurice. The building was carried on

by his successors and completed in 1315; this had an eventful history lasting till 1666, when it was destroyed by the Great Fire of London, which demolished five-sixths of the City, devastated an area of 436 acres, burnt 13,200 houses, and, it is stated, rendered 200,000 persons homeless. This was "Old St. Paul's," and since every guide book is full of descriptions of



ST. PAUL'S CATHEDRAL.

the present building, perhaps Besant's account of the former one, taken from Stow, would prove interesting:

There was much that astonished me in this walk through London of the year 1603, but nothing so surprising and unexpected as St. Paul's Cathedral. I had pictured a church narrow, long, somewhat low and dark. I found, on the other hand, that it was in every respect a most noble church, longer than any cathedral I had ever seen, loftier also, and well lighted in every part, the style grand and simple. Consider, therefore, my astonishment at finding the church desecrated and abandoned like the common streets for the uses of the people. The choir alone, where the

old screen still stood, was reserved for purposes of worship, for there was a public thoroughfare through the transepts and across the church. Men tramped through carrying baskets of meat or of bread, sacks of coal, bundles, bags and parcels of all kinds, walking as in the streets, turning neither to right nor left. Hucksters and pedlars not only walked through, but lingered on their way to sell their wares. Servants stood and sat about a certain pillar to be hired; scribes sat about another pillar, writing letters for those who required their services; clergymen in quest of a curacy or vicarage gathered at another pillar. . . . This is an exchange where almost as much business is done as at Sir Thomas Gresham's bourse, but of another kind. Here are houses bought and sold, here is money lent on usury; here are conspiracies hatched, villainies resolved upon; here is the honour of women bought and sold; here, if a man wants a handful of desperadoes for the Spanish Main he may buy them cheap.

Such was the St. Paul's of Elizabeth's day—the St. Paul's, part of which in the time of the Commonwealth was let off in shops and stalls, and the nave of which actually became a cavalry barrack. When King Charles returned it was resolved to repair and restore the cathedral, by this time almost in ruins; but while the citizens were considering what should be done the great fire of London settled the question by burning all that was left.

It was then that Sir Christopher Wren began the present building, which is a fine specimen of Renaissance architecture and is universally considered to be his greatest work. The first stone was laid on June 21, 1675; divine service was performed on December 2, 1697, the day of thanksgiving for the peace of Ryswick; but the work was not completed till 1710. The grandeur of the building cannot be appreciated owing to the fact that it is so blocked in by houses on every side that nothing but a near view of it can be obtained; it is only from the other side of the river at Bankside, Southwark, one can see what a really splendid edifice it is and how nobly it stands above all the city.

The north tower contains a peal of twelve bells, hung in 1878; eleven are engraved with the arms and motto of the City Company by whom they were presented, while the twelfth, the fine tenor bell, presented by the Corporation of London, bears the City arms and their well-known motto. The Great Bell—the largest in England—is hung in the clock tower and is only tolled at the death of a member of the Royal family, the Archbishop of Canterbury, the Bishop of London or the Dean of the Cathedral.

The visitor will find countless objects of interest inside the building—it were superfluous to name them here—let him not

forget the tablet over the north door, formerly affixed to the choir screen:

“Subtus conditur hujus ecclesiæ et urbis conditor Ch. Wren qui vixit annos ultra nonaginta, non sibi, sed bono publico.

Lector, si monumentum quæris circumspice.”

In very truth:

“If thou seekest his monument look around.”

The Tower of London,

where the visitors will be received by General Sir Hugh Gough, V.C., G.C.B., Keeper of the Regalia, and Lady Gough, has existed for over eight centuries, and long before the Conquest the site was occupied by a Roman fortification. It vies with Westminster Abbey in being the most time-honoured building in Great Britain, and is undoubtedly one of the foremost buildings of the world.

Three hundred years ago Stow wrote of it:

The Tower is a citadel to defend or command the city, a royal palace for assemblies or treaties, a prison of State for the most dangerous offenders, the only place of coinage for all England, the armory for war-like provision, the treasury of the ornaments and jewels of the Crown, the general conserves of the most ancient records of the king's courts of justice at Westminster.

Indeed, to write the history of the Tower would be almost to write the history—the sadder history of England. It is still, and always has been, a fortress. In the reign of Stephen it was regarded as impregnable, and during the whole mediæval period it was always a place of strong defence, although strange to say it does not ever appear to have endured a siege. It has been in addition a palace, a court, a mint, a prison. Most of our kings from the Conqueror to Charles II. used the Tower as a palace. Mr. Clark says: “The strong monarchs employed the Tower as a prison, the weak ones as a fortress,” but after mediæval days the sovereigns kept out of it as much as they could, seldom visiting it except in cases of official necessity—these were confined to lodging there on the day previous to the coronation—Charles II. was the last sovereign to carry out this convention. It stands out prominently in the history of the reign of Richard III., and it was in the Council Room of the White Tower in 1399 that Richard, in his robes, sceptre in hand, and crown upon his head, abdicated the throne in favour of his cousin, Henry of Lancaster.

For many centuries a royal menagerie of wild beasts was placed near the entrance. Henry I. kept lions and leopards—Henry III. added to the collection at later dates. The number of wild beasts became very considerable, and it was not until 1834 that the few animals then remaining were finally removed to the Zoological Gardens in Regent's Park.

It is, however, as a **State Prison** that the Tower is above all associated in our minds. Here have been confined the very noblest men and women in the land, in addition to those who have richly deserved their fate. Sir Walter Besant says :

There are two places belonging to the Tower which should be specially interesting to the visitor. These are the chapel called "St. Peter ad Vincula" and the terrace along the river. The history, my American



TOWER OF LONDON, FROM THE THAMES.

friend, which this chapel illustrates, is your property and your inheritance as much as our own. Your ancestors, as well as ours, looked on while the people buried in the chapel were done to death. Look at those letters "A.B." They mark the grave of the hapless Anne Boleyn—a martyr, perhaps; a child of her own bad age, perhaps—who knows? Beside her lies her sister in misfortune—no martyr, if all is true, yet surely hapless—Catherine Howard. Here lies the sweetest and tenderest of victims, Lady Jane Grey. You cannot read her last words without breaking down; you cannot think of her fate without tears. Here lies Sir Walter Raleigh—is there anywhere in America a monument to the memory of this illustrious man? For the rest, come here and make your own catalogue; it will recall, as Macaulay wrote, "whatever is darkest in human nature and in human destiny, with the savage triumph of implacable enemies, with all the miseries of fallen greatness and of blighted fame."

There were two places of execution in the old days—that on Tower Hill (under the authority of the Governors of the City), and the other on Tower Green within the Tower walls. The hallowed spot on Tower Green was marked off and railed in by the late Queen. History has only to be recalled to bring to mind those who have suffered here.

The Beauchamp Tower is one of the most interesting of the buildings, as it is full of inscriptions on the walls cut by the prisoners. Sir Walter Raleigh was three times a prisoner in this tower.

Traitor's Gate, being the principal entrance of the Tower of London from the river, and through which State prisoners of rank and dignity were formerly conveyed into it, could unfold many a sad tale.

On through that gate misnamed, through which before
Went Sidney, Russell, Raleigh, Cranmer, More.

These are great names, yet they are but few that could be named.

The visitors cannot miss the Bloody Tower, in which are kept the Crown jewels and regalia.

The terrace along the river is “fit for the musing of a summer afternoon,” for where else in England can such a contrast be found?—in front the mighty river, the life of to-day; behind “the grey old fabric with its ancient walls and towers of stone, its barbican, its ditch, its gates, its keep.” Yes, there is life, but it is the life of the past.

Westminster Abbey.

The history of Westminster Abbey—“the stately shrine of England's story”—has been told by many writers in many volumes. Loftie, Dart and Dean Stanley have all expatiated on its tombs and monuments, the coronations, functions and ceremonies, the funerals and weddings that have been celebrated within its sacred walls; while students of architecture have minutely described and assigned a date to practically every stone of its structure. The literature it has created is so voluminous that it is impossible to refer here in more than a few words to what is acknowledged by all Englishmen to be the most hallowed building in the country.

Westminster is of unknown antiquity, and the broad, swampy marsh on which it is built was long known from its wild growth of underwood as “Thorney”—the Isle of Thorns—

before the abbey and its neighbouring palace arose to give the place a name which defined its position with regard to the City of London and St. Paul's—the East Minster—on the summit of a hill a mile off.

The Abbey of St. Peter's, Westminster, is said to have been founded on the first conversion of the East Saxons, and at the same time as the foundation of St. Paul's. At any rate, there was a monastery with the church here as early as the eighth century. This was deserted during the Danish troubles, but refounded by Dunstan and built on a scale of much greater magnificence by Edward the Confessor. Henry III., anxious to honour Edward, intended to pull down the whole church and rebuild it completely. This he accomplished as far as the



WESTMINSTER ABBEY, FROM DEAN'S YARD.

crossing of the transepts and the nave, making the chief feature of his new church the shrine of Edward the Confessor, which was raised high above the floor of the church on an artificial mound of earth brought from the Holy Land. This shrine is to-day the same as that before which for 500 years people knelt as to the protector saint of England, although it has been in the course of history robbed of its gold and precious stones. Edward I. continued the work, and since his time the chantry has been added by Henry V., a chapel by Henry VII., while the architects Wren and Hawksmoor completed the western towers.

In addition to portions of the Confessor's Church still remaining, there are also a few fragments of the domestic buildings of the Abbey dating from this time—buildings which

towards the end of the fourteenth century Abbot Litlington for the most part reconstructed. The cloisters, the Jerusalem Chamber—of old the Abbot's residence, where we will be received by the Dean, the Very Rev. J. Armitage Robinson—the chapter-house, the Abbot's dining-hall, still remain.

In form the Abbey is a Latin cross, the total length, including Henry VII.'s Chapel, being 520 ft. Its tall columns and narrow pointed arches which support the groined roof impart to it stateliness and beauty. The choir extends beyond the transept to the middle of the nave, from which it is separated by an iron screen. The old pavement of mosaic before the altar was laid down by Abbot de Ware in 1260. Now the inscriptions are almost obliterated. The very fine wood carving of the choir was executed in 1848; the ornamentation of the dean's stall and the canopies of the canon's stalls are especially elaborate. The galleries above the aisles are spacious, and, it is surmised, were intended by the architect for spectators at the great functions of the Church; but should the visitor seek to supplement the ample information which will be given him by a competent guide, he will find it necessary to read the historians of the abbey on the tombs and the statues, the sculptors and the architects, on the occupants and all their mighty exploits.

It is difficult, however, to pass over without a word some of the buildings and points of interest which claim special attention.

The magnificent Chapel of Henry VII. is entered by gates of oak with gilt devices and carvings, in which the "Roses," united by the marriage of Henry with the Princess Elizabeth of York, are especially prominent. The chapel itself is in reality a royal burial place; in the centre of its nave is the altar tomb of Henry VII. and his queen, while Edward VI., Mary, Elizabeth, Mary Queen of Scots, James I., Charles II., William and Mary, Anne, George II., as well as a host of other hardly less notable personages, lie buried here.

The Chapel of Edward the Confessor, or, as it is sometimes called, the Chapel of Kings, contains, among other monuments, the shrine of Edward the Confessor, erected by Henry III., the remains of Henry III. himself, as well as those of Edward and his devoted wife Queen Eleanor, Henry V. (the victor of Agincourt) and his queen, Katherine, Edward III., and Philippa. It is in this chapel that the two Coronation chairs of carved oak are kept; beneath the older one is the well-known stone of Scone, on which the ancient Scottish kings, and according to tradition, the still more ancient Irish kings, were "far back in other days"

crowned. Its legendary origin is familiar to all, and was removed from Ireland to Scotland at a very early date and placed (*circa* 850) in the Abbey Church of Scone. Edward I. brought it to England in 1296, and since that time it has been beneath the chair on which every sovereign of England has sat when receiving the Crown. The second chair was made for the Coronation of Mary, joint sovereign with her husband William III.

An interesting portion of the edifice, built by Edward the Confessor, is the chapel of the Pyx, according to good authority the Royal Treasure-house of the English kings. Besant, in his



WESTMINSTER ABBEY—CHAPEL AND SHRINE OF EDWARD THE CONFESSOR.

“Westminster,” gives a full and interesting account of how once upon a time a certain trader—Richard Podelicote—in the year 1303, when the Treasury contained a larger amount of specie than usual, for the use of the King in his Scottish campaign, made one of the most astonishing and daring attempts in history to rob the Royal storehouse. The King’s treasure consisted of the Saxon regalia, jewelled crowns, swords, cups of State and precious vessels, and also of such moneys as he had acquired as his due, or accumulated from time to time for special purposes; the safe deposit of all this value was the ancient Norman chapel of the Pyx—i.e., the Chapel of the Box—which contained those things necessary for the assay and examination of new coins. The story of this attempt is, unfortu-

nately, incomplete, and the fate of the ringleaders is unknown, but it is beyond doubt that most of them were hanged. The treasure chest is now removed to the Royal Mint and contains the standards of gold and silver coins.

Westminster Abbey must not be dismissed without mentioning the Poets' Corner, the shrine of art and literature. Here lies its first occupant, Geoffrey Chaucer, buried in 1400, not because of his *Canterbury Tales*, but because he was a friend of the Royal Household. Near him lies Spenser, at whose funeral all the poets were present; then come Drayton, "rare" Ben Jonson, Sir William Davenant, Abraham Cowley, John Dryden, Joseph Addison, Samuel Johnson, Sheridan, Macaulay, Lord Lytton, Dickens, Browning, Tennyson, and many others too numerous to mention. Of those great writers who were not buried here, but to whose memory monuments have been erected, are William Shakespeare, John Milton, Alexander Pope, Thomas Gray, and Oliver Goldsmith.

It is one of these—Addison—who voices the humour which characterises many when they visit this sacred pile, replete with royal memories and national associations:

When I am in a serious humour I very often walk by myself in Westminster Abbey, when the gloominess of the place, and the use to which it is applied, with the solemnity of the building and the conditions of the people who lie in it, are apt to fill the mind with a kind of melancholy, or rather thoughtfulness, that is not disagreeable. . . . When I look upon the tombs of the great, every emotion of envy dies within me. When I read the epitaphs of the beautiful, every inordinate desire goes out; when I meet with the grief of parents upon a tombstone, my heart melts with compassion; when I see kings lying by those who deposed them, when I consider rival wits side by side; or the holy men who divided the world with their contests and disputes, I reflect with sorrow and astonishment on the little competitions, factions, and debates of mankind.

EXCURSION TO THE OLD CITY.

An excursion to the south-east corner of the old city will be conducted by Mr. Bryan Corcoran, who has arranged the following comprehensive tour, which is drawn up with a view to giving the visitor some faint idea of the London of the past. Space does not permit us to much more than briefly describe a few of the places visited in the itinerary, but Mr. Corcoran will supply a fund of interesting information to those availing themselves of his escort.

Drive to London Bridge, Lower Thames Street, approach to old London Bridge, Sir Christopher Wren's house, foreign



CITY OF LONDON,
S.E. corner, from William
Newton's endeavour to
show Monasteries and
Churches, etc.

*Reign of Henry VIII., before the Reformation, altered
and marked by Bryan Corcoran.*

1. White Tower.
2. Outer Ramparts and Ditch.
3. Tower Postern.
4. St. Peter's Church in the Tower.
5. Priory of the Holy Trinity.
6. St. Botolph's, Aldgate.
8. St. Catharine's Hospital.
9. Abbey of Grace.
11. Nunnery of St. Clair.
12. St. Michael's, near Aldgate.
13. St. Catharine Cree Church.
14. Bevis Marks.
17. St. Mary Axe Church.
18. Fletcher's Hall.
19. St. Andrew's, Undershaft.
20. The Maypole.
22. Widow Cornwallis's.
23. Ironmongers' Hall.
24. Allhallows's Stane Church.
25. Blanchapleton.
26. St. Catharine Coleman.
27. Northumberland House.
28. House of Mount Joves.
29. Sycen's Head Inn.
30. Well Poor Jewry Lane.

31. Crouched Friars.
32. Allhallows Barking Church.
33. King's Chapel of Barking.
34. St. Olave's, Hart Street.
35. Tower Water-gate.
36. Galley Quay.
37. Petty Wales.
38. Trinity House.
39. Old Custom House.
40. Bakers' Hall.
41. St. Dunstan's Church, East.
42. High Tower of Brick.
43. St. Margaret Patten's Church.
44. Belin's Gate.
45. Site of Roman Villa.
46. St. Mary-at-Hill Church.
47. St. Andrew Hubbard Church.
48. St. George's, Boto'ph Lane.
49. Langbourne Head.
60. St. Gabriel, Fen Church.
61. Burial Ground.
62. St. Dionysius Back Church.
63. Pewterers' Hall.
64. Lord Nevill's House.
65. Bembridge Inn.

66. High Tower of Timber.
67. Green Gate.
68. Leaden Porch.
69. Sir W. Bowyer's House.
70. Leaden Hall.
71. Horse Mill.
72. Chapel in Leaden Hall.
73. King's Head Tavern.
74. Crosby Hall.
75. St. Helen's Nunnery.
105. Standard on Cornhill.
108. St. Peter's Church.

- A Mark Lane.
B Mincing Lane.
C Seething Lane.
D Hart Street.
E Crutched Friars.
F Jewry Street.
G Fenchurch Street.
H Coopers Row.
I Corn Exchange.
J Commercial Sale Rooms.
KLMN Limit of Fire, 1666.
OPQ London Wall.

fruit warehouses, Billingsgate, Coal Exchange (on site of Roman villa), Custom House, steeple of St. Dunstan's-in-the-East, Galley Quay, Tower of London, Tower Hill, portions of London (Roman) Wall, Trinity House, Crutched Friars, gateway of the old Navy office on site of monastery, St. Olave's Church, Hart Street (Pepy's monument), Allhallows Barking Church, Great Tower Street, old business premises, Mincing lane, Clothworkers' Hall, Allhallows Staining Church tower, Fenchurch Street, Ironmongers' Hall, Mark Lane, Corn Exchange, old ambassador's house, etc. The party will lunch at London Tavern, Fenchurch Street (where Queen Elizabeth dined in 1554 on her release from the Tower). The party will then proceed to the Guildhall.

Lower Thames Street runs eastward from London Bridge to the Custom House and Tower. Chaucer, the "father of English poetry," is said to have lived here in 1379-85.

The Coal Exchange, opposite to the **Custom House** (see page 9), was erected in 1849 from plans by Bunning, in the Italian style. Adjoining it on the east is a hypocaust, or stone of masonry, belonging to a Roman bath discovered when the foundations were being dug.

To the north of the Custom House, at the convergence of St. Dunstan's Hill and Idol Lane, is the church of St. Dunstan's-in-the-East, rebuilt in 1671 by Wren and again in 1817-21. The square tower, ending in a kind of lantern steeple, is Wren's work (1699).

Lower Thames Street opens at its eastern end on **Tower Hill**, where formerly stood the scaffold for the execution of traitors, on a site now within Trinity Square Gardens. William Penn was born, and Otway, the poet, died on Tower Hill, and here, too, Sir Walter Raleigh's wife lodged while her unfortunate husband languished in the **Tower** (see page 49). On the north side is **Trinity House**, a plain building erected in 1793-95 from designs by Wyatt, the façade of which is embellished with the arms of the Corporation, medallion portraits of George III. and Queen Charlotte, and several emblems of navigation. The company was founded by Sir Thomas Spert in 1515, and incorporated by Henry VIII. in 1529.

At the junction of Tower Street and Seething Lane is the church of **All Hallows, Barking**, founded by the nuns of Barking Abbey, in Essex. Several times altered in mediæval times, it had a very narrow escape from the Great Fire of 1666, and since 1883 has undergone an extensive restora-

tion, especially in the interior. The tower replaced one which had to be taken down in 1659 because it had become unsafe, and was erected at that time. The principal porch is modern. Upon the latter are statues of St. Ethelburga, first Abbess of Barking Abbey, and Bishop Lancelot Andrewes (b. 1555), who was baptised in the church. The parish register records also the baptism of William Penn (1644). Archbishop Laud was buried in the graveyard after his execution on Tower Hill (1645), but his body was removed in 1663 to the chapel of St. John's College, Oxford, of which he was an alumnus. All Hallows is noted for its brasses, the oldest of which (1389) is that of William Tonge, in the south aisle, while the finest is a Flemish brass of 1530, immediately in front of the Litany desk.

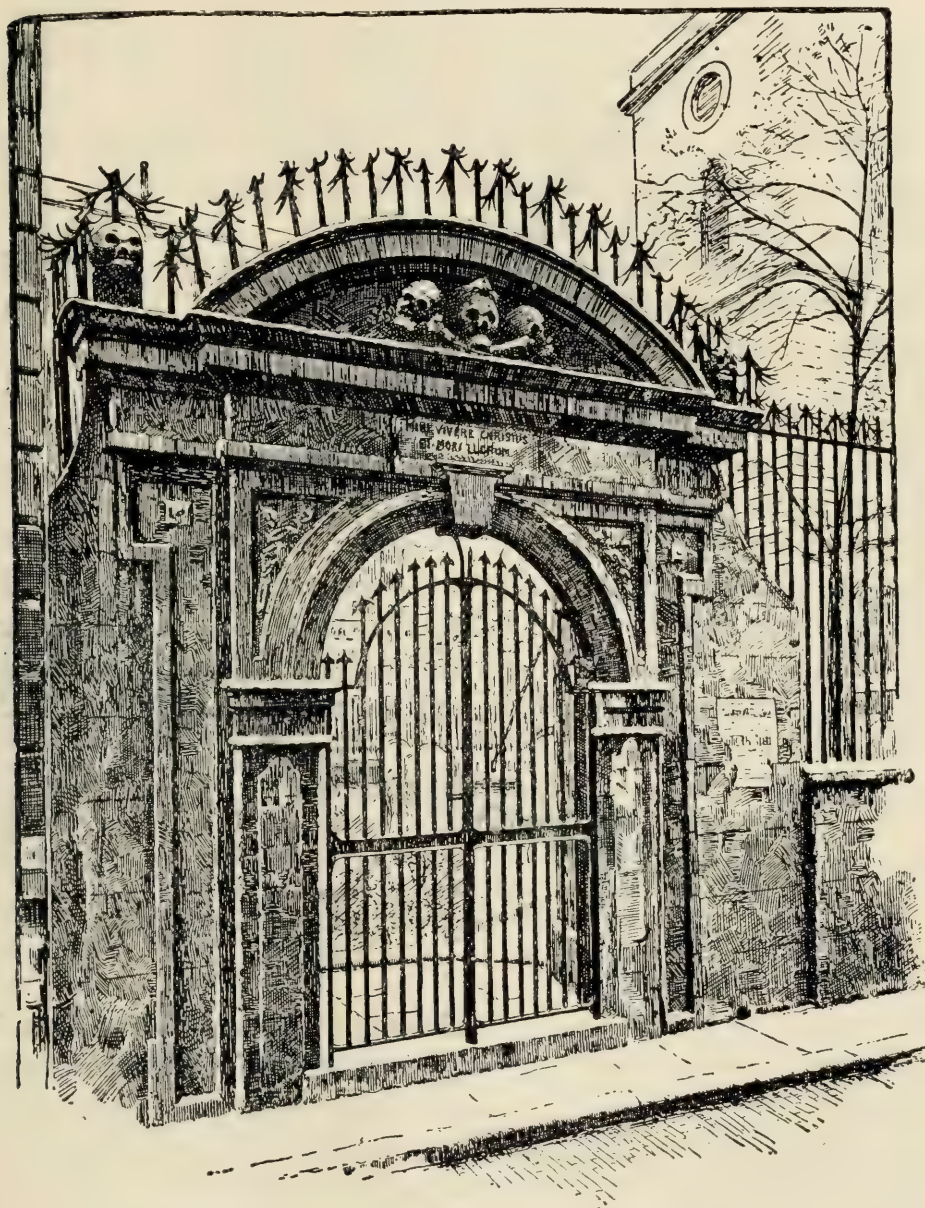
Besides the four chief orders, several other orders of friars were settled in London. First in importance of these were the **Crutched Friars**, from the cross forming part of the staff carried by them, which was styled a "crutch." This was afterwards given up, and a cross of red cloth was placed upon the breast of the gown. The order is said to have been instituted by Gerard, prior of St. Mary of Morella, at Bologna, and confirmed in 1169 by Pope Alexander III., who brought them under St. Austin's rule.

They came to England in 1244, and had their first house at Colchester. It was not until 1298 that these friars came to London, and the house in the parish of St. Olave, Hart Street, was founded by Ralph Hosier and William Sabernes.

St. Olave's, Hart Street, is dedicated to Olaf, an eleventh century Norwegian king, who received the honour of canonisation on account of the zeal with which he propagated Christianity amongst his subjects. The period of the original foundation of the church is unknown, and no allusion to it has been found previous to the year 1319, when an agreement was made between the rector and his neighbours, the brethren of the Crutched Friars. Neither can the precise date be fixed of the erection of the present edifice, although in all probability the greater part of it was constructed during the fifteenth century. It is interesting as having survived the Great Fire, and, in a secondary way, of having been the church once frequented by Samuel Pepys, the diarist. The picturesque interior contains a number of curious old tombs, including those of Pepys and his wife. The skulls over the gate of the churchyard in Seething Lane are said to commemorate the fact that many persons who died of the plague in 1665 are buried

here, but this tradition is not supported by the burials register of the church.

Great Tower Street is connected with Fenchurch Street by **Mincing Lane** (so called from the "minchens," or nuns of St. Helen's, to whom part of it belonged). The church of St.



ENTRANCE TO CHURCHYARD, ST. OLAVE'S, HART STREET.

Helen's, Bishopsgate Street, is said to have been founded by Constantine in memory of his mother ; however true this may be, it seems certain that a church existed in Saxon times. The history of the present church, however, begins in the latter part of the reign of King John, when, perhaps in the year 1212, William, son of William the Goldsmith, obtained permission to found

the Priory of St. Helen for nuns of the Benedictine Order. This is another of the few churches which survived the fire. The **Clothworkers' Hall**, in Mincing Lane, was built in 1860; the company, of which Samuel Pepys was master in 1677, was incorporated in the fifteenth century. A little to the east of this in Mark Lane is the **Corn Exchange**.

Slightly to the north of Lombard Street is the church of **All Hallows**, not far from Gracechurch Street. Stow calls it All Hallows, "Grasse Church," "for that the grass market"—still commemorated in the name of Gracechurch Street—"went down that way, when that street was far broader than now it is, being straitened by incroachments."

All Hallows suffered very serious injury by the Great Fire. The parishioners appear to have hoped to be able to patch it up again, for they had the walls coped with straw and lime to arrest further decay, and as late as 1679 hung a bell in the steeple. But the old edifice was damaged beyond the possibility of reparation, and they were compelled to have a new church built, which was completed by Wren in 1694 at a cost of £8,058.

The church of All Hallows is connected with Lombard Street by a passage which is entered through an archway between Nos. 48 and 49. Affixed to the wall on the west side of the passage is a handsomely-carved gateway with this inscription:

This ancient gateway
was erected at the entrance in Lombard Street
to All Hallows Church soon after the Great
Fire of London, and was removed to this place
when the buildings adjoining in Lombard
Street were rebuilt in 1865.

The tower, which is of stone and very simple, rises at the south-west. It is divided into three storeys, of which the lowermost displays at its south face a spacious doorway formed by Corinthian columns with entablature and pediment, while the second is pierced by a circular window, and the third by square openings with louvres, each surmounted by a cornice. A cornice and parapet complete the tower, the height of which is about 85 ft.

Lombard Street and **Fenchurch Street** are among the busiest thoroughfares of the City. Lombard Street has been for ages the most noted street in London for banking and finance, and has inherited its name from the "Lombard" money-dealers from Genoa and Florence, who in the fourteenth

and fifteenth centuries took the place of the discredited and persecuted Jews of "Old Jewry" as moneylenders. Alexander Pope was born in Plough Court, on the right side of Lombard Street, in a house demolished in 1872. Fenchurch Street reminds us by its name of the fenny character of the district when the old church was built, drained by the little stream of Langbourne, running into the Walbrook. Mr. Loftie, however, considers that "fen" may be a corruption of "foin" (hay), as "grace" in Gracechurch Street is of "grass." In Fenchurch Street is the old London Tavern, where lunch will be served.

The **River** has made London, and London has acknowledged its obligations to the Thames. It was the silent highway along which the chief traffic of the city passed during the Middle Ages, and probably the roads of London would have been better if the water carriage had not been so good. The river continued to be the silent highway until the nineteenth century, when it lost its high position. With the construction of the Thames Embankment the river again took its proper place as the centre of London, but it did not again become its main artery.

The river was the highway of business and pleasure, and the intimate relations between England and Normandy after the Conquest naturally encouraged commerce between the Continent and England, and London became the centre of this trade. Ships came here and moored by the old wooden bridge from Flanders, Germany, Gascony, Italy, and also from Norway. Wharves lined the sides of the Thames, and each class of goods was landed at a wharf set apart for a special nationality.

Mr. Riley gives an interesting account of the localities adjoining the northern banks of the Thames in the fourteenth century :

The banks of Thames from the Postern of Petit Wales (near the Tower), as far probably as the Friars Preachers, or Black Friars, seem to have been intersected in these times by numberless small lanes, which, themselves public property, ran from Thames Street, by the side of a private residence or other edifice, and led to the owner's wharf in front of his dwelling-house ; these wharves again, in some instances, being separated by water-gates, through which apparently the public had a right to claim, as an easement, right of passage. From many of the wharves there also projected bridges or jetties into the river, for the same purpose as the stairs of modern times. Many of the wharves on the Thames were known as "gates" (or "ways") besides Billingsgate, as Ebbgate, identical with the Old Swan Lane and Wharf, Upper Thames Street, and Oystergate, on the site of the north end of the present London Bridge. The latter was the principal place for the sale of shell-fish, which was only to be sold "from the way of London Bridge towards the west unto the corner of the wall of the Church of St. Mary Magdalene." Oystergate was also a place of great resort for the sellers of rushes, who paid a small rent for their standing.

They have now filled up most of the old port of **Billingsgate** and made a convenient quay in its place. They have also put up a new market in place of the old sheds, so that now it is said to be the finest market in the world. Sir Walter Besant says of it:

Formerly it was graced by the presence of the fishwoman—those ladies celebrated in verse and prose, who contributed a new noun to the language. The word Billingsgate conveys the impression of ready speech and mother wit—speech and wit unrestrained, of rolling torrent of invective, of a rare invention in abuse, a give-and-take of charge and repartee as quick and as dextrous as the play of singlestick between two masters of defence. The fishwoman of the market enjoyed the reputation of being more skilled in this language than any other class in London. The carmen, the brewers, the draymen, the watermen, the fellowship porters, were all skilled practitioners—in fact, they all practised daily; but none, it was acknowledged in fullness and richness of detail, in decoration, in invention, could rise to the heights reached by the fishwomen of the market. They were as strong also, physically, as men even of their own class. If a visitor offended one of them she ducked him in the river. They all smoked pipes like men, and they drank rum and beer like men. They were a picturesque part of the market, presiding over their stalls. Alas! the market knows them no more. The fishwoman has been banished from the place; she lingers still in the dried-fish market opposite, but she is changed. She has lost her old superiority of language. She no longer drinks or smokes and exchanges repartee; she is sad and silent. We all have our little day; she has enjoyed hers, and it is all over and past. If you would see the market at its best you must visit it at five in the morning, when the day's work begins. The place is then already crowded. You will find bustle and noise enough over the sale of such an enormous mass of fish as will help you to understand something of hungry London. Hither come all the fish-mongers to buy up their daily supplies. If you try to connect this vast mass of fish with the mouths for which it is destined you feel the same kind of bewilderment that falls upon the brain when it tries to realise the meaning of millions.

At 4 p.m. a garden party will be given by Mr. J. Fletcher Moulton, K.C., M.P., F.R.S., and Mrs. Moulton, at 57 Onslow Square, South Kensington, S.W. At 9 p.m. a visit will be made to the Coliseum, St. Martin's Lane, one of the most recent places of entertainment in London.

SATURDAY, JULY 15.

DARTFORD.

By kind invitation of Mr. Henry S. Wellcome, the members of the Society of Chemical Industry and their friends will be enabled to inspect the chemical works and the Wellcome Club and Institute of the firm of Messrs. Burroughs, Wellcome & Co.

The special train provided by Mr. Wellcome for his guests will leave Charing Cross at 10.30 a.m., and convey them to Dartford, a thriving market town in Kent, in the narrow valley of the Darent two miles above its influx to the Thames. The Dartford High Street is part of a road constructed by the Romans and formed the main highway to London at the time of the Roman occupation. Edward III. here founded an Augustinian Nunnery in 1355, while St. Edmund's Chantry was a great place for pilgrimages, and it was at Dartford that Wat Tyler commenced his rebellion in 1381. The church, with a Norman tower, was restored in 1863; among its interesting monuments is one to Sir John Spielman, Queen Elizabeth's jeweller, who in 1588 established at Dartford what is said to have been the first paper mill in England. Paper is still manufactured, also steam-engines, and machinery, gunpowder, etc., but the chief feature of the place at present is the firm in which we are interested.

The morning will be spent in visiting the exceptionally fine works belonging to the firm of Burroughs, Wellcome & Co., a firm established only a quarter of a century ago, during which period it has grown from a very small beginning to one of the largest pharmaceutical concerns in the world. Twenty-five years ago it employed one or two people, now there are over 1,300 of both sexes, including many professional scientific workers. Its reputation has been founded on the superiority of the products, and the compressed preparations made by Messrs. Burroughs, Wellcome & Co., issued under the distinctive mark or brand of "tabloids," are known all the world over.

One of the most striking features of this firm is the consideration which it extends towards its employees. An eight-

hour day has been adopted throughout, so that all may have ample time for recreation and improvement, and every opportunity for the latter has been given in the founding of the Wellcome Club and Institute. The premises consist of the old manor house, with its extensive grounds, formerly known as Acacia Hall, together with other buildings, which provide libraries, reading rooms, assembly rooms, a gymnasium, etc. The objects of the club are to provide harmony and social intercourse amongst the employees and to supply them with a pleasant resort outside business hours ; to encourage mental and physical recreation by means of music, literary and other entertainments, technical and other instruction classes, with occasional lectures, and athletics, field sports, and games.

In the way of education the firm assists all employees to better their condition by paying fees on their behalf to the local technical institute, which holds classes in a variety of technical subjects. It is unnecessary to describe the luxurious club-houses, the playing fields, the well-kept lawns and gardens, the boating arrangements, and other advantages which Mr. Wellcome and firm have inaugurated for the benefit of their numerous staff. The visitors will see them all for themselves, and be entertained by Mr. and Mrs. Wellcome in the beautiful grounds of the club and institute. Mr. Wellcome has done a vast amount of good in addition to "welfare work." He personally superintends all that appertains to the interest of his people ; he gives entire dispensaries to hospitals ; he is the founder of two private scientific research laboratories—the Chemical and Physiological Research Laboratory. He has also recently founded and equipped some splendid chemical and physiological research laboratories at Khartoum.



SUNDAY, JULY 16.

VISIT TO CANTERBURY.

The special train leaves for Charing Cross Station at 10.45 a.m.

The visitor leaving London for Canterbury—a journey of some seventy miles—will have an admirable opportunity of getting some idea of the immense magnitude of the suburbs of modern London. When one reflects that these miles upon miles of streets stretch not only in this—the southeasterly direction—but also north, south, east and west, and the intervening points of the compass, one begins to realise in a small degree the actual extent of the “Hub of the Universe.” When at last “suburbia” is left behind we pass into the heart of Kent—the fruit garden of England—with its characteristic orchards, strawberry beds and cherry gardens, its far renowned and picturesque hop fields and their accompanying artistic oast houses, the name applied to the kilns where the hops are dried. The picking and packing of the fruit and hops gives employment in the season to many hundreds of “Cockneys,” who revel in the chance of obtaining a summer outing in a profitable manner. These same Kentish hops have served as the nucleus of the now important and lucrative hopping industry carried on round the Pacific Coast and other parts of North America.

Canterbury.—It is with justice that the arms of Canterbury claim for it the august and venerable title “*Mater Angliæ*,” for although historians and antiquarians may disagree with regard to the respective authenticity of the usually accredited account of the Saxon invasion, with its story of Hengist and Horsa on the one hand, and the less picturesque theory put forth by more scientific investigators on the other, all are at least unanimous in regarding Kent as the cradle of our race, and Canterbury as the mother city of our land. It was here that our race first settled and laid the foundation of our English trade by establishing its first permanent centre of commerce.

Bands of immigrants from the Continent would be likely to cross the channel at the easiest point, and therefore we are

entitled to assume that the various peoples who from time to time made incursions into the country crossed from the Continent at the Straits of Dover, and it is with the immigration of these tribes into Britain that the history of England—Kent and Canterbury—really begins.

It is true that Cæsar, careful observer and exact historian as he was, makes no mention of Canterbury by name as he does make mention of Kent, but there can be little doubt that the “position, admirably fortified both by nature and art,” referred to by him can be none other than **Bigbury Camp**, in those days the “oppidum” of Canterbury, then called “Durovernum”—the stronghold in the marsh—an accurate description of the place as it must have been at that time, the territory he calls “Cantium”—the cant or corner of Britain—a name it seems to have borne ever since the dawn of history. After the introduction of Christianity, when it was Ethelbert’s capital, the history of Cant-wara-byrig (the fortress of the men of Kent) merges into the history of its cathedral, for it was round the monasteries and churches that all the interest of any mediæval town centred. It cannot be wondered at then that Christ Church, Canterbury, for so many years the goal of pilgrims from the whole civilised world, should especially be the means of enriching the city and making religious associations the centre of its life.

Canterbury Cathedral, over which we shall be conducted by the Dean, the Very Rev. Henry Wace, D.D., has since the year 597, the date of the baptism of King Cuthbert, the first Christian English King, by St. Augustine of Canterbury, a Christian church has always stood on the site of the present Canterbury Cathedral. It has always been closely connected with the history of the Church in this country; it was here that the first great English school was founded by Archbishop Theodore, and here that the first organ was heard in England. It is the burial place of most of the old English Archbishops, from Cuthbert to Cardinal Pole, and in addition, of other dignitaries and statesmen who have become famous in history.

In its connection with secular events of national importance it is only rivalled by Westminster Abbey. It contains royal tombs, and has from time immemorial witnessed functions and ceremonies in which kings and princes have played the leading part.

In 1130 Henry I. visited it with King David of Scotland and all the English bishops; Henry II. performed his memor-

able penance here in 1170; Richard I. visited it on his return from the Crusades; and King John was crowned here in 1201. It witnessed the marriage of Edward I. to Margaret of France, and the Black Prince is closely associated with its memory; on his way home from the battle of Poitiers in 1357 he visited it with his prisoner, the French king, and subsequent to his marriage with the Fair Maid of Kent, built his chantry. His remains are laid in Trinity Chapel, close to the site of Becket's shrine. Henry V. was received there after the battle of Agincourt; Edward IV. presented the north window of the Martyrdom; Henry VII. and Henry VIII. were accustomed to worship here in great state, and so has it been visited all the way down the royal line.



CANTERBURY CATHEDRAL, FROM GATEWAY.

The architecture of the cathedral is beautiful in the extreme; it exhibits specimens of Early English as well as pre-Norman, Norman, Transition, Decorated, Perpendicular, and modern styles, and the cloisters contain specimens of nearly every variety of mediæval architecture.

Bede states that it was built by Roman Christians, but afterwards, when the Romans left the country, it was used by the Saxons for Pagan worship. At any rate, when Ethelbert became Christian in A.D. 597, he handed over to St. Augustine the old Roman temple of Canterbury for his cathedral, he himself retiring to Reculver in order that his palace might be

utilised by St. Augustine and his monks. This church was of stone or brick, and parts of it—nearly fifteen hundred years old—are still visible in the crypt.

From A.D. 740—when Cuthbert was archbishop—to 1070, the Church underwent a series of sackings, burnings, and rebuildings. Lanfranc, then Primate, rebuilt it, but his successor, Archbishop Anselm, appointed Ernulf to be prior, who began taking down Lanfranc's choir and rebuilding it much more magnificently. This was not completed till Conrad, who succeeded Ernulf as Prior, took it in hand, and it was under Archbishop Corboil that it was finally dedicated with great pomp in 1130. Unfortunately, however, in September, 1174, owing to a fire occurring just outside the monastery walls, the church, of which the inhabitants were so proud, caught fire and "was reduced," so says the chronicler, "to a despicable heap of ashes." Between 1175 and 1178 the rebuilding of what constitutes the present cathedral was magnificently carried out by "William of Sens," until a fall from the scaffolding incapacitated him. He was succeeded by "William the Englishman," who ably continued the work and introduced into it more of the Early English style of architecture. From time to time additions have been made, until now the cathedral and its buildings are "a perfect museum of mediæval architecture," and its history has been so well preserved that a date can be assigned to nearly every stone.

The numerous chapels arose mainly from the great wealth of relics possessed by the Church and the necessity of finding shrine-room to display them. By far the most important of its possessions was, of course, Becket's monument.

The shrine of St. Thomas of Canterbury at one time attracted more pilgrims than any other in Christendom, and no visitor to the cathedral can appreciate what he sees unless he realises in some measure the glamour which overhung the resting-place of the saint in Chaucer's time. Other English shrines enjoyed a span of popularity, but none appealed to the mediæval mind as this one did. It lay on the high road between the capital and the Continent, and a powerful political sentiment was enlisted in the favour of the murdered archbishop. The mediæval palmer was the tourist and excursionist of those days; the treasures of the monasteries, their appointments and their relics comprised "the sights" which they travelled to see. The religious motive for going was certainly more general, more powerful than now, but it was by no means the prevailing one of the great majority of pilgrims. The "Canterbury Tales," of

Geoffrey Chaucer, strikingly illustrate the "personally conducted" touring party in which we find representatives of all ranks of society—the knight, the yeoman, the monk, the merchant, the scholar, the tradesman, the squire, the lawyer, the miller, the nun, and so on.

In the particular case of Thomas à Becket, the political feeling was kept well to the fore for many years following; he was the champion of the Church against the king, and for that cause was murdered in 1170; more than thirty years after Stephen Langton and the Crusaders wrung Magna Charta from King John, it was but natural then that Langton would be associated with Becket, in consequence the shrine of the latter would be crowded with pilgrims anxious to show their living sympathies with the former. In later days both the religious and political motives for undertaking the pilgrimage dwindled, and in the religious Reformation of Henry VIII.'s reign the shrine was dismantled, and its gold and jewels taken away.

The crypt of the cathedral has been assigned to a congregation of refugee Walloons and Huguenots driven out of the Netherlands by the persecutions of Alva (1567), and out of France in 1572 after the massacre of St. Bartholomew, and again after the Revocation of the Edict of Nantes in 1685; it is still used for Sunday services (in the French language) by their few remaining descendants. It was in the crypt of Trinity Chapel that Henry II. did penance for his crime.

The cloisters are very beautiful and full of historic associations; they contain about 800 coats of arms of the royal and noble contributors of the fourteenth and fifteenth centuries, now discoloured and faded. Their architecture was originally Norman, but they were restored in Archbishop Langton's time in the Early English style, and finally rebuilt in their Perpendicular style by Chillendon about 1400. They are inseparably connected with the memory of Thomas à Becket and the night of his murder, December 29, 1170; the archbishop entered them by the north door, the four armed knights who were in pursuit of him by the south door. To the general veneration inspired by the "holy blissful martyr," and the belief in the mighty miracles wrought by his relic the cathedral, and therefore the town, owed its European fame, and five centuries of prosperity and wealth from the gifts poured into his shrine by the many thousands of pilgrims who flocked from the whole civilised world to do him homage.

St. Augustine's Abbey.—The ruins of St. Augustine's Abbey are specially interesting, as they mark the site of

the first church built for St. Augustine after the conversion of Ethelbert, King of the West Saxons, in 597. An earlier church on the site was that of St. Pancras, the remains of which may still be seen. Undoubtedly this church was built of Roman materials, but it was designed on the Anglo-Saxon type, and there is evidence that it was hallowed and used by St. Augustine himself. In the cemetery attached to the monastery the remains of St. Augustine and a number of succeeding archbishops were interred. Cuthbert, however, directed that his body should be buried *in* the cathedral, thus conferring an enormous prestige on the rival foundation of Christ Church.

St. Augustine's was from time to time enlarged, pulled down and rebuilt, partaking in the inevitable vicissitudes of time, until on July 30, 1538, the abbey was surrendered by the abbot and thirty monks to Henry VIII. At that time much of the church and many of the "superfluous" buildings were pulled down, but the rest was converted into a royal palace, which was visited by Elizabeth, Charles I., and Charles II. This seems to have been formed out of the abbot's apartments on the west side of the cloister, and though now the palace has vanished, traces of it may yet be seen. By 1655 it appears to have been reduced to very small dimensions; part of it became converted into a house, but none of the subsequent owners seem to have taken any pains to preserve it, so that, as time went on, the whole site gradually came to be treated with decreasing veneration. The principal apartments were converted into an alehouse, the gateway became a brewery, the courtyard a bowling green, the chapel and aisle of the church a fives court.

In 1845 Mr. Beresford Hope, M.P., bought the property and presented it as a site for a missionary college. This was incorporated by Royal Charter in 1848, and, where possible, restoration was effected. The chapel was consecrated; the old guest hall, which stands over an undercroft, converted into a dining-hall for the students; a library erected on the site of the abbot's room, and other new buildings added for the accommodation of the students. At present it is a famous missionary college with far-reaching influence, accommodating from forty to sixty students, with a warden (Rev. J. O. F. Murray, D.D.) and fellows.

St. Martin's Church has rightly been called the cradle of English Christianity, and is full of interest both as regards its associations and its structure. The date of the

building, which still exists, is a never-ending source of controversy, as it contains very many features which may be attributed to either Roman or Saxon architecture; but whatever view be held with regard to its connection with the soldiers of the Roman army or with St. Martin of Tours, there is no doubt whatever that it was Queen Bertha's oratory, as well as the church in which St. Augustine first preached and the baptism of Ethelbert, King of Kent, took place. The venerable Bede, who wrote within 100 years of St. Augustine, expressly states that there was (in 597) in Canterbury a church "dedicated to the honour of St. Martin, and built of old, while the Romans still occupied Britain." After they left the country it is possible that the church was still used by a band—a small band—of Christian worshippers—but little is actually known till the coming of St. Augustine. Subsequent to the death of Ethelbert and Bertha scarcely anything is heard of St. Martin's; it possibly suffered injury at the hands of the Danes and was partially restored by the Normans, and again, at a later date, a grammar school—probably one of the earliest in England—was attached to it in the fourteenth century. It is unfortunate that it was exempt from the jurisdiction of the Archdeacon of Canterbury, otherwise much information would be derived from their extant records. The chancel appears to have been built at three distinct periods, the masonry of the earliest being composed of Roman bricks laid evenly upon one another. This is considered to be the oldest portion of the building.

The best-known feature of interest in the church is the font, the composition of which is most unusual, not being carved out of a single block of material as might be expected, but made up of twenty-two separate stones. The carving exhibited on its three tiers is characteristic of the Norman period, but it is possible that this was done at a later date to do honour to a historical monument, in which it was likely the first Christian English king was baptised. The door in the north wall, with its irregular Caen stones, the Norman piscina, the tower chamber, the leper's window behind the reading-desk, the two Elizabethan brasses (1587 and 1591), are among other objects of interest in the building.

The chrismatory preserved in the vestry is an interesting relic of mediæval times. It is a brass box dating from the fourteenth century, and contains three pewter pots in which were originally kept the three oils—the holy chrism, the oil for anointing the sick, the oil for catechumens, ordered to be kept

apart by the Archbishop Aelfric: "Ye ought to have three flasks ready for the three oils, for we dare not put them together in one oil vessel, because each of them is hallowed apart for a particular service."

A visitor to Canterbury should certainly make a point of seeing this indisputably oldest existing church in England—that tiny grain of mustard seed whose shoots and branches have penetrated into the furthest corner of the civilised world.

The Dane John is the chief feature in the pleasant recreation grounds. In all probability this huge artificial mound goes back to prehistoric days, and has been known at various times as Danzil, Danzon, Dungeon, and Dane John; it is not infrequently, though incorrectly, associated with the Danish Invasion. The only fact which seems certain about its history is that it must have been in existence before the city walls were planned, as they curve outwards in order that it may be enclosed within them. It is probable that at some period of its existence it was used for the defence of the city in conjunction with two other mounds, formerly to be seen (now covered by the railway station) in the Martyr's Field. It was made into its present shape about 1790, when the gardens of the Dane John (which have always belonged to the citizens, and used at one time for archery practice) were laid out for the benefit of the public. Some bones, flint implements, sling-stones, Roman pottery and ornaments, and fragments of Roman mosaic pavement, were discovered near it during the repair of the city walls in 1883. A splendid view of the city and surrounding country will reward anyone who has the energy to climb to its summit.

In addition to those already mentioned there are naturally many other old-world relics in the mother city of England.

Canterbury Castle, mentioned in Domesday Book and in existence long before the Conquest, now, unfortunately, in the hands of the local gas company; the **Martyr's Field**—a memorial of forty-one victims of the Marian Persecution; the many hospitals, **St. John's** notably, with its half-timbered gateway, its 16th century kitchen and dining-hall, where can yet be seen the old open fireplace, the old pewter sets, dishes, plates, flagons, wooden mazers and platters, and rich old Tudor carving; the hospital of **St. Nicholas** on the Great London Road, where the Canterbury Pilgrims halted on their way to the shrine of St. Thomas; **Christchurch Gate**, at the end of Mercery Lane, one of the most beautiful specimens of Perpendicular work in the country; the remains of the famous

“**Chekers of the Hope** that every man doth know,” at the south-west corner of Mercery Lane ; the **King’s School** in the mint yard, justly claiming to be the oldest of our English public schools ; the **Royal Museum**, containing many objects of remarkable rarity, especially **St. Augustine’s Chair**, believed to be the one in which St. Augustine was seated when he received the British Bishops at St. Augustine’s Oak ; all these and very many others are there whose honourable age and venerable antiquity compel the interested visitor respectfully to exclaim “Ave Mater Angliæ.”



PROVINCIAL MEETING.

MONDAY, JULY 17.

**VISIT TO THE NOTTINGHAM
SECTION.**

The members of the Society of Chemical Industry and their guests will leave for their trip to the north of England from St. Pancras Station, the terminus of the Midland Railway—a line running through some of the most beautiful scenery in England. St. Pancras Station and Hotel, situated in the Euston Road, were designed by Sir Gilbert Scott, R.A. The latter, which forms the frontage, is a fine Gothic structure, and behind it is the splendid span of the passenger station roof, the largest single span in the world.

Leaving the bricks and mortar of the Metropolis behind, the traveller passes through the cathedral town of St. Albans, the Verulanium of the Romans and one of the most ancient and interesting of English cities. Its chief point of note lies in its cathedral, a vast Norman minster, largely built out of Roman bricks; a glimpse of its towers can be obtained from the train.

From St. Albans onward the Midland line runs through a country exceptionally rich in historic associations—Luton and Leagrave, a name which suggests the Lea, the river made so famous by Izaak Walton's *Compleat Angler*; Olney, the sometime home of the poet Cowper; and Bedford, for ever associated in our minds with John Bunyan, the tinker, and author of the *Pilgrim's Progress*.

A little to the north of Kettering the main line branches into two sections, each forming a route to the North, the one through Leicester, the other—ours—through Melton Mowbray to Nottingham.

NOTTINGHAM.

Nottingham, famous all the world over as the centre of the lace industry, is situated on the north bank of the Trent, and stands on what was at one time the southern edge of Sherwood Forest, so long famous as the scene of the exploits of "Robin Hood and his merrie men." It lies partly on the

alluvial plain of the river, and partly nestled in a slight depression in the northern escarpment of the Trent valley, the ground rising by gentle undulations from about 90 ft. above the sea-level on the river plain to about 420 ft. on the highest ground in the suburbs. The low-lying district is called "The Meadows," although, as a matter of fact, the green grass has long given way to houses, factories, and busy streets presenting a very different appearance to our conception of the term.

Although Nottingham is a great manufacturing centre where other trades are carried on to a large extent besides the staple industries of lace and hosiery, it is a remarkable fact—especially when we remember that Nottingham is an important mining centre, situated as it is on the southern edge of the great Notts, Derbyshire, and South Yorkshire coalfield—that there is little smoke and griminess, a feature usually inseparable from a large manufacturing place. It has been suggested that Nottingham owes much of its healthiness to the fact that it stands on the readily-absorbent new red sandstone formation, and to the purity of its water supply, which is drawn from deep wells in the sand rock a few miles to the north.

Undoubtedly much of what Nottingham is to-day is due to the enterprise and the enlightened spirit of its corporation, which has for years spared no expense in rendering the town more healthy and attractive, once having, as it were, burst the mediæval bonds which restricted its growth. Besides large sums spent in opening out and widening some of the oldest thoroughfares, which were found to be totally inadequate for modern requirements, the Nottingham corporation was one of the first municipal bodies in the kingdom to take over the gas and water supplies (which they did in 1874 and 1880 respectively), in order to manage them for the benefit of the community at large; it has also erected an electric lighting station, and the tramways are under its control. In addition, the city council has done much for the intellectual advancement of its inhabitants. A free library was opened in 1868, and a few years later the system of University Extension education, which has since spread to all parts of the country, had its inception in Nottingham, and led in 1878 to the erection by the town council of University College, the first example of the establishment of a place for the higher education of the people by a municipality in the kingdom. Provision was made in the same building for the free library and for the Natural History Museum. The college has since been supplemented

by the erection of a fine technical school, where electrical engineering and the scientific bases of other handicrafts, having a local bearing, are taught. Not far distant is the School of Art, which was erected by private subscriptions, but which has within the last few years come under the control of the corporation. It is due to the desire of the corporation for the development of the artistic taste of the people that the castle was transformed in 1878, at a cost of about £30,000 (aided by voluntary contributions), from a blackened ruin, in which condition it had remained since the Reform Riots in 1831, into an Art Museum and a pleasant place for recreation. It is here that most of the municipal functions and garden parties are held. But the work of the corporation has not stopped here. Besides making provision for recreation in various ways, handsome public baths, fitted up on the latest and most approved principles, have been erected in the more thickly populated parts, as well as on the banks of the Trent.

Perhaps the most remarkable feature about Nottingham is the rapidity of its growth during the last sixty years. In 1845 the borough was less than two miles in circumference, and comprised an area of about 900 acres, being scarcely any bigger as regards area, though, of course, more densely populated, than it was at the time of the Norman Conquest. Yet Nottingham was considered an important stronghold long before the time of Edward the Elder, chiefly, no doubt, on account of its situation on one of the principal waterways of the kingdom, at the point where it was crossed by the great high-road to the North. It is one of the chain of five towns of the Dane-law, and was the centre round which raged many of the fierce conflicts between the Danes and the Saxons. The early importance of Nottingham is attested by the fact that no charter of its incorporation is extant. All its municipal documents point back to a yet earlier deed, the provisions of which are assumed. It now covers an area of $15\frac{1}{2}$ square miles, and its population has increased enormously. This development has been brought about in a great measure by two events. The first of these was the enclosure in 1845 of over a thousand acres of common land surrounding the old town, which had hitherto been used for pasturage by the burgesses. This gave a great impetus to building operations, hitherto restricted for want of space. The second great expansive movement took place in 1877, when the borough was extended by the inclusion within its boundaries of the suburbs of Sneinton, Carrington, Sherwood, Radford, Lenton,

Cinder Hill, Basford, Hyson Green, and Bulwell. This change gave a still greater impetus to building operations, and the open fields which in some parts separated these outlying hamlets from the town have now been completely built over, forming a united area something like four miles in extent from north to south and three and a half miles from east to west. This phenomenal development was appropriately recognised in 1897 by the elevation of Nottingham to the rank of a city.

As in most ancient places, the growth of the municipal institutions and liberties of Nottingham has been gradual, and in some respects unique. The municipal dignities of Nottingham carry us back to the time of the Norman Conquest, and, in fact, some way into Saxon days. The old Saxon borough, the defences of which (as we learn from the Anglo-Saxon Chronicle) Edward the Elder repaired, and which probably consisted merely of a ditch with an earthen rampart alongside, was situated on a low hill, or rather plateau, now occupied by the "lace market." When the Normans came they settled on the Castle hill and the ground that intervened between it and the old Saxon borough (now forming the heart of the old town), called at that time (as we learn from the Domesday Book) the *new* borough. After the battle of Hastings the citizens of Nottingham held out against William the Conqueror. When he eventually obtained possession of the town, after much bloodshed, he rebuilt or enlarged the castle "in a style," as William of Malmesbury says, "that was unknown before"—i.e., the Norman style—and gave it to his natural son, William Peveril, "to bridle the English." The town was at that time divided into two boroughs by a line drawn along what is now Clumber Street, Bridlesmith Gate, Drury Hill, and Sussex Street, the eastern part being the English borough, and the western, including the castle and the park, the French borough, each having a separate manor court or town hall, a separate mint (for there were two mints in Nottingham in those days), separate juries, and, from the earliest times to 1834, each its own coroner. The market-place was similarly divided down the middle by a wall, supposed to have marked the boundary between the old and new boroughs, which existed down to the year 1714, the Long Row side being the English, and the south side the French portion.

The first mayor of Nottingham was elected in 1284, and the office of recorder was instituted in 1413. In 1448 Henry VI. constituted Nottingham a county in itself, a distinction which it still retains. The corporation now consists of a mayor,

sixteen aldermen, and forty-eight councillors. The corporate officers are likewise authorised to wear the same livery as the City of London.

Nottingham undoubtedly owed much of its strategic importance in ancient times to the castle, the site of which at once arrests the attention of the visitor by its boldness. Indeed, the history of the town is closely interwoven with that of its castle, an account of which will be found further on.

From the reign of Henry II. down to the time of Charles I.—a period of 500 years—Nottingham was protected by a strong wall, with a deep moat at its foot. This wall ran from the north side of the castle down Park Row and the middle of Parliament Street, securing the west and north sides of the borough, as well as the south side where it was not protected by that cliff which forms the northern escarpment of the Trent valley; but whether it was ever carried round the east side—Coalpit Lane and Carter Gate—is doubtful, the town being protected there by marshy ground. Remains of this old wall and ditch have recently been met with, showing that it was from six to eight feet in thickness, and the stones of the wall were for the most part set in clay, mortar being used but sparingly, except for the outer facing. The moat was thirty feet wide, and was twenty feet deep below the modern street level. Leland, writing in 1538, says, “The towne be welle wallid with stone, and hath divers gates. Much waul is now down, and the gates saving two or three.” Nothing of the wall is now to be seen above ground. Little remains at the present day except a few narrow streets around the market-place, which, by the way, is the largest in England, to give one an idea of the mediæval town, and even these are rapidly giving place to broad thoroughfares lined with palatial buildings in all the medley of architectural styles characteristic of the present day. From old writers, however, we get a faint glimpse of what Nottingham was like two or three centuries ago. Evelyn, the famous diarist, who passed through Nottingham about 1654, says that “he found large streets full of crosses, an ample market-place, with an open trough and horse-pond in the centre, with a mouldering wall down the middle, saw-pits, stocks, pillory, and ducking-stool.”

The latter instrument of torture was removed in 1731, in consequence of a woman who was placed in the cucking-stool being ducked so severely that she died. A century or two later Cox, in his *History and Topography of Notts*, wrote:

“Nottingham has more gentlemen’s houses in it than any town of its size in Great Britain.” These town mansions of the nobility have, however, long since been converted into offices and warehouses, and their owners have taken up their residence in the country. Another characteristic of old Nottingham that has now entirely disappeared is its rock habitations, the formation of which was greatly facilitated by the ease with which the rock on which the city stands can be hollowed out into caves and cellars; a few survived down to thirty or forty years ago, and to within recent times were perpetuated in Sneinton Hermitage. When the question of Sunday recreation was discussed in Parliament in the seventeenth century, one of the members for the borough, in advocating it, stated that, as most of his constituents lived underground, he thought they were at least entitled to enjoy themselves in the open air on Sunday.

Down to 1884 Nottingham was in the diocese of Lincoln; since the creation of the bishopric of Southwell in that year, however, it has formed part of the new see. Nottingham is the place where the assizes are held; it is also the seat of government and meeting place of the Notts County Council. For Parliamentary purposes it is divided into three divisions—a southern, a western, and an eastern—each of which returns one member. The Finch-Hatton family derive the title of Earl of Nottingham from this place.

Messrs. Turney Brothers, Ltd., Light Leather Manufacturers, Trent Bridge Leather Works.—The firm was founded in 1861 by Mr. John Turney (now Sir John Turney) and his brother, Mr. Edward Turney. The works are situated on an island between the river and the canal, and cover an area of about three acres. In 1888 the business was turned into a limited liability company, Sir John Turney being managing director.

The principal raw material employed is English sheep pelts, of which an average of about 2,000 dozens weekly are dealt with. About 1,500 dozens are split and manufactured into skivers and chamois leather respectively, the former being the grain side and the latter the flesh side of the skin. In addition to this Messrs. Turney Brothers, Ltd., tan about 500 dozens of basils and 100 dozens of calf weekly, besides finishing large quantities of East India tanned goat and sheep. They also manufacture finished hat leathers.

The power employed is steam and electricity, sixteen steam engines and eight motors being at present at work.

Thomas Adams, Ltd.—The Sherwood Hill Lace Works, New Basford, belonging to Thomas Adams, Ltd., are fine

examples of mercantile architecture, and are well fitted to characteristically represent the numerous lace factories for which Notts is famous.

Starting at the entrance of the works on the south side, we enter the Brown Room, where the lace curtains, mosquito nets, Valenciennes laces, Torchons, etc., are prepared for bleaching. We pass the soap plant, where all the soaps used in these works are manufactured, then into the old bleach yard, where the dollies are at work removing the dirt and blacklead. The latter is used as a lubricant for the lace machine, and is removed with difficulty.

The principal bleach-house is now entered, and the continuous process of bleaching may be inspected. The lace pieces—stitched end to end to form a continuous length of several miles—are run into the boiling *kiers* and through the various washing and bleaching machines, by this means ensuring thorough penetration and effective cleansing.

We now come to the lace curtain stenders, or stretching frames, where the curtains are stiffened and stretched, dried, reeled, and passed on to the curtain-finishing rooms. Here the scolloping, knitting, and taping of the curtains may be seen; then the folding and parcelling of the goods. We next go to the dressing-rooms, where the bulk of the lace goods are stretched on stationary frames varying from 200 to 400 in. wide. After stretching they are dried by revolving wafters. The size of this principal room is 330 ft. by 200 ft. It contains half a mile of dressing frames and over two miles of 4-in. steam pipe for heating the room.

Coming to the north side of the works, we pass the dipping and starching rooms, and reach the dyehouse, where the dyeing of silk lace and veilings, as well as cotton lace and glove fabrics, may be seen. Owing to the delicacy and lightness of many of the fabrics, the drying of lace goods is done by hand in dye-becks provided with winches, special care being required to prevent damage.

It is interesting to know that a religious service is conducted for half an hour every morning in a chapel built over the entrance to the works. The custom was established by the directors of the company in 1876.

Excursion to Southwell Minster.

The excursion to Southwell Minster, the cathedral church of the diocese of Nottingham, will take us through the centre

of "Ivanhoe-land," and will skirt the remains of Sherwood Forest, with its ancient oaks. After passing Colwick Wood, on the right side of the line is the Nottingham Racecourse, opened in 1892. It and the adjoining sports ground are the property of a private company; they are picturesquely situated on the Colwick estate, close by the banks of the River Trent. Almost buried amid the trees is Colwick Hall, the ancient home of the Byrons. In the early part of the century Mary Chaworth lived here. This was the "Mary" whom Byron unsuccessfully wooed, and of whom he wrote in that pathetic poem, "The Dream." After refusing the hand of the poet-lord, the maiden, who was of surpassing beauty, married Mr. Musters, of Colwick Hall. She was residing here in the winter of 1831, when during the riots the mob, having burnt Nottingham Castle, proceeded hither to fire the hall. In this they were foiled; but they wrecked the furniture and destroyed the pictures, whilst Mrs. Musters, almost terrified to death, found shelter, with her child, from the lawless ruffians amid the shrubs of the garden.

Soon after passing Carlton Station we get a glimpse of the Trent, and a little further on see the very successful sewage farm belonging to the Nottingham Corporation. Six miles from Nottingham Burton Joyce is reached. The village takes its name from the ancient lords of the manor, whose name was Joiz. The church is ancient, having an Early English nave, and is worth inspection. In the north aisle is the monumental effigy of an armed knight of the fourteenth century, and the chancel contains some interesting sepulchral memorials of old-time owners of the village. It is supposed that Burton Joyce was a minor station of the Romans, for on a hill close to the village are the remains of some ancient fortifications.

The old Danish village of Lowdham ("Lud-holme") is two miles and a half further on. Many historic associations cluster here. One of the de Lowdhams was Archbishop of York in the time of Henry III., and the brave old Simon de Montfort—one of the chief founders of the English Parliament—held property close by.

The next station is Thurgarton, where a famous priory was founded by Ralph Deincourt about the year 1130. During the eighteenth century most of its buildings were destroyed, the cellars only being left. It was then rebuilt as a dwelling-house, but the old priory church yet remains under the same roof. A few years ago some alterations were

effected, and the priory is now the residence of the Bishop of Southwell.

At Fiskerton we are close to the village of Stoke, where, on June 16, 1487, was fought one of the most stubbornly-contested battles which has ever taken place in England. It was in the fields away to the right, and across the Trent, that the forces of the Pretender, Lambert Simnel, under the command of the Earl of Lincoln, met the rival army of Henry VII., now two years a king. Victory at length declared for the king. The Earl of Lincoln and most of the rebel leaders were slain, and in the rout which closed the day Henry drove the beaten insurgents down the ravine to Fiskerton Ferry amid such a scene of slaughter that the name "Red Gutter" has clung to the spot until to-day. Many were drowned in the Trent whilst trying to escape. Lord Lovel, one of the leaders of the defeated army, was never discovered after the fight. Whether he was drowned in the river or fell on the field of battle it is quite impossible to say, but there is an old tradition to the effect that he escaped to his own home in Oxfordshire, where he hid, and that he perished from hunger, having been neglected by his servant. More than two hundred years afterwards, when his house was undergoing repairs, the complete skeleton of a man was found in a vault, the existence of which was till then unknown, so that there may be some truth in the tradition. Simnel, the nominal head of the rebellion, was captured, but as it was evident that he had been a mere tool and was beneath apprehension or resentment, he received a royal pardon. Henry made him a scullion in the palace kitchens, from which humble position he was afterwards advanced to the rank of falconer.

Southwell.—That Southwell is a place of great antiquity is an undoubted fact; and it is equally certain that in comparatively recent times it was of larger dimensions than it is now. Its historic associations are extremely rich, and go right back into that dim twilight of early history in which it is difficult, if not impossible, to distinguish the real from the false. As we proceed from the station to Burgage Green, on the right side of the hill, we observe that the green itself is depressed. Fifteen hundred years ago or more here was a Roman encampment, and this was the fosse and ditch. Tradition asserts that Paulinus, the founder of the sees of York and Lincoln, established a church here. Antiquaries are at variance upon the point, but there is good reason to believe that the great "Apostle of the North" passed through the district, and he would scarcely omit to

promulgate his mission here. We can conjure up the scene, thanks to Wordsworth's verse, which is based upon the account in the chronicle of the Venerable Bede :

Mark him of shoulders curved and stature tall,
Black hair and vivid eye, and meagre cheek,
His prominent feature like an eagle's beak—
A man whose aspect doth at once appal
And strike with reverence.

The Cathedral.—There is no clear date to which we can ascribe the first foundation of a church at Southwell, but it is highly probable that an important structure was erected here soon after the Danish invasion had ceased. A collegiate church



SOUTHWELL CATHEDRAL FROM S.E.

existed in the place at the time of the Conquest (1066), and it was just about at this time that the Archbishop of York formed prebends in connection with the church.

At the beginning of the twelfth century it was raised to the dignity of mother church of the county, and about the year 1110 the present imposing edifice was begun. The nave and transepts of the original fabric are still standing. The building is cruciform in plan, of Norman architecture, though presenting specimens of later styles and orders. It has a central and two western towers, the grouping of which, according to the authority of the late Professor Freeman, "is as perfect as it may well be." As soon as the structure began to rise it was favoured by royal grants and various benefactions. Thurston,

Archbishop of York, the hero of the "Battle of the Standard," added to its dignity by the establishment of two prebends. In the thirteenth century the small Norman choir gave place to a larger one, a special indulgence for thirty days being offered to all contributors to its building fund. The beautiful chapter house, at the south end of the building, was also erected about this time, the date limits being 1285-1300. In 1539, when the dread dissolution came, the prebendaries seized the bull by the horns, and, making a virtue of necessity, voluntarily surrendered the college to the king. Their wisdom was rewarded by the re-endowment of the building in the next year. During the period of the Civil War, Southwell was often the scene of great excitement, and the minster church witnessed some curious sights. Upon one occasion the Roundhead troops, it is said, were quartered in the sacred edifice, the horses being stabled in the nave. At the conclusion of the strife its destruction was ordered by Cromwell—just enough for the accommodation of the townspeople was to be left. But from this unhappy fate it was delivered by the intercession of a local gentleman, one Edward Cludd, who stood well in the Protector's favour. In 1711 the north tower was struck by lightning, and part of the building caught fire. By Act of Parliament the "college" was dissolved in 1848, and in 1884 the edifice was constituted a cathedral.

Such is a brief outline of its history, and now a few words on the building. As we draw near to the west front the excellent preservation of the fabric will at once claim notice. The great doorway is a good specimen of Norman architecture, the mouldings being almost as perfect as when they left the sculptor's hands—in the reign of Henry I. The two towers are typically Norman, but the otherwise perfect front is spoilt by the insertion of a large Perpendicular window, which dates from the fifteenth century. On the south side, the original Norman windows have long since disappeared; they were replaced by others of Perpendicular design in the time of Richard II. The circular windows of the clerestory form one of the most peculiar features of the building. In Norman architecture such circular windows, without tracery, were very rare; another such clerestory cannot be found in England. The great central tower is both a lantern and campanile, the chimes of which are set to the tune of the National Anthem. Lord Byron, when a boy, used to mount the summit to muse in loneliness, and his name is to be seen carved up there yet. The choir is a beautiful structure, in the Early English style of Gothic archi-

ture, but one of its chief charms has been destroyed by a lowering of the roof. It was from the south-east corner—at which we have now arrived—that Turner, the painter, took his sketch of the minster. Passing round the east front we reach the chapter house, a fine specimen of the Decorated style. Octagonal in form, and with a beautiful parapet, which will well repay attention, it is thought that its architect was John Romanus, who designed a very similar chapter house for the cathedral at York. The roof is modern. The north porch is a peculiar and magnificent specimen of an elaborate Norman doorway. Very few of its kind now remain, and this has the almost unique feature of an upper room. The venerable appearance of the porch will strike the most casual observer. The fabric itself is hoary with age, and the oaken door, with its ponderous lock, is five centuries old—perhaps even more.

As we enter the cathedral through its west door and look down the nave we can hardly fail to be surprised at the massive appearance of the interior. Its architecture is more solid than beautiful, but it is characteristically Norman and severely majestic. The round stone pillars, six on each side, are four feet and a half thick and nineteen in height. The circular oak roof is modern, having replaced the low flat ceiling in the restoration of 1881. The portion of the building up to the second pier was part of the site of Archbishop Booth's chapel, which was destroyed in 1784. Crossing over to the left, or north, side we find in the first bay the only original window in the nave. Against the second window is an ancient effigy in a recess. Nothing remains to tell the tale of the departed whose memory it was intended to perpetuate; but it is supposed that it covers the remains of the founder of a chantry chapel which once existed here—a view which receives support from the fact that, some years ago, the walls of this bay, and this alone, were found to have been enriched with painting.

The transepts are similar in design to the nave, but without the aisles. In the centre is the tall lantern tower supported by four lofty arches, which open to the four arms of the cross. In the eastern wall of the south transept there yet remains the archway of an entrance into a circular chapel, long since destroyed.

The original Norman choir was barely half the size of the present one, and after an existence of about a century it was pulled down. It stretched only to the middle of the fourth

bay of the present presbytery, which is a beautiful structure in the elegant Early English style. The screen is pure Decorated work, and dates from about 1340. It is most beautifully enriched with ornament, and its stone roof has the appearance of a sham vault. The single arch which leads into the choir has a curious little staircase on either side, with pierced openings, through which a view of the chancel may be obtained. There are three prebendal stalls on either side of this arch. They are "misère" stalls. Each seat is fixed with hinges, and when turned up forms a kind of bracket, of sufficient size to afford rest to anyone leaning upon it. Such seats were used of old by ecclesiastics when they had to perform long services or penitentials standing. The carving is worth examination. The stalls are modern, as also is the organ, but the brass lectern is old, and has a romantic history of its own. It belonged to Newstead Abbey; and when the dissolution of that religious house took place in 1539 the monks hid their ancient charters in the boss of this lectern, and threw it into the lake in front of their monastery. It was not until 1780 that it was found, and then sold to a dealer in Nottingham. It was purchased for Southwell in 1805, and when sent for cleaning, the boss was unscrewed and the parchment charters were discovered intact. On either side of the chancel is a little chapel, which gives the cruciform shape to the choir. In the one to the south is the recessed effigy of a priest, whose identity is unknown. The eastern window, of stained glass, is from the chapel of the Knights Templars at Paris, and is about four hundred years old. Most of the glazing in the cathedral is modern and uninteresting, but this is at once both ancient and beautiful. These windows were found in a pawnbroker's shop in Paris in 1815, where they had probably lain in a neglected heap since the Reign of Terror.

In the north transept, over the belfry doorway, is a curious piece of sculpture, which is said to be older than any part of the existing church. The rude carving is supposed to be descriptive of Psalm xci. 13: "Thou shalt tread upon the lion and the adder, the young lion and the serpent shalt thou trample under foot." It is almost certainly of Anglo-Saxon workmanship—a relic of a previous church. At the north end is the fine alabaster monument of Sandys, Archbishop of York, a benefactor to the church, who died in 1588. At a lower level than the transept itself is the north transept chapel, in the Early English style. With the exception of its architectural details, it offers little of interest to the visitor. Previous to

1825 it was used as a music school and vicar's vestry, and after that date as the library. It was thoroughly restored a few years ago and is now again utilised as a vestry.

The passage leading to the chapter house is not all of one date. The cloister, with its low wooden ceiling, is earlier than the chapter house or the vestibule which connects it with the main building. The eastern arcade was originally open and looked out upon the court which we shall shortly enter. Attention should be given to the fine carving of natural foliage which adorns the capitals. Beyond the cloister is the chapter house, an octangular building thirty-two feet and a half in diameter with no central pillar. There is probably no other room in the world so full of magnificent leaf-sculpture as this; the delicate work in the cloister and the beautiful wreath of unconventional foliage around the doorway are but a foretaste of the beauties to be found here. The sculptor was a consummate artist, who went direct to nature for his patterns; but how he managed to cut the stone in such clear relief is a mystery. The chapter house is of Decorated style, and is one of the most perfect and original buildings in England. The painted windows have been collected from various parts of the cathedral and from other churches in the district. Leaving the chapter house, the visitor should not fail to go into the court-yard, from the north-east corner of which may be obtained a pretty view of the tower and of the various kinds of architecture.

On the south side of the cathedral are the picturesque ruins of the old palace of the Archbishops of York, the larger portion of which was erected by Archbishop Thoresby about the year 1360, on the site of an earlier mansion. Archbishops Kemp and Booth, both of whom were much at Southwell, effected many additions and alterations in the fifteenth century, and in the reign of Henry VIII. Wolsey spent a considerable sum in ornamenting and repairing the structure. The old palace must have been pretty extensive, and, judging from the number of prelates who made it their home, it must have been a comfortable dwelling. A few years ago, when the see was created, part of the ruins were restored by the Bishop Suffragan of Nottingham. It was thought that the new bishop would make it his home, but Thurgarton Priory being selected in preference, the work of restoration came to an abrupt termination. Into this restored part the visitor will probably enter first, and the great court chamber will attract most attention. There are some portraits upon the walls, including one of the Nottinghamshire-born Archbishop of Canterbury,

Cranmer, and one of Wolsey, who, as Archbishop of York, frequently lodged here. The great cardinal was here when the storm-cloud of royal disfavour burst upon him. It was hence he set out in 1530 to Scrooby, the home of the Pilgrim Fathers, and afterwards removed to Cawood, where he was arrested for high treason by his tear-stricken host. The scene is thus described by an eye-witness :

The Earl of Northumberland and Wolsey were standing by the window, by the chimney in my lord's bedchamber, when the Earl tremblingly said, with a very faint and soft voice unto my lord, his hand on his arm, "My lord, I arrest you for high treason." At these words the Cardinal was marvellously astonished, and even stood for a considerable time without uttering a word.

At the close of the Great Civil War the Scotch Commissioners were in residence here, and their withdrawal at the conclusion of the strife was the signal for its destruction. The leaden roof was stripped by the Roundhead troops, the interior was looted, and soon the grand old palace was little better than a pile of ruins. The exact site of the building is easily distinguished, for the chain of walls is fairly complete up to a certain height. The palace was of Decorated architecture, but the windows and fireplaces are of Later Perpendicular style. The visitor will find them interesting enough—a remark which will also apply to some curious mediæval closets in the south-east corner of the ruins. Some of the outbuildings—stables, pigstyes, etc.—are of respectable antiquity, and will be viewed with interest.

After the inspection of these ruins we proceed to tea at the **Saracen's Head Hotel**. In ancient times this was known as the "King's Arms," and is an old-world structure, the history of which can be traced back to the reign of Richard II. Charles I. lodged here more than once during the Civil War. Upon one occasion whilst staying here, we are told that he entered the shop of a bootmaker, who, after examining the royal shoe, refused point blank to repair it, informing his unknown visitor that he had seen him in a dream and that his vision had warned him that he was doomed to destruction, and that those who worked for him would never thrive. Cromwell is also said to have lodged here during one of his marches; and in the room (to the left of the entrance) in which perchance our party will be entertained King Charles ate his last meal as a free man. At the close of the repast he surrendered himself to the Scottish Commissioners, and three years later was executed at Whitehall.

Visit to Places of Interest in Nottingham.

The party who leave Victoria Station Hotel to visit places of interest in the city will be ably conducted to all that is worth seeing by the City Librarian, Mr. H. Potter Briscoe. They will in all probability be pointed out the famous Nottingham market place, said to be one of the finest in England; and, not far away, the butcher's shop in a room of which the poet Kirke White was born on March 21, 1785. Victoria Street is a handsome thoroughfare, and the ancient-looking houses with overhanging chambers in Bridlesmith Gate, once the Bond Street of the place, give one an idea of what the town was like 300 years ago, when it was full of such erections. Facing the end of the street was the old postern gate, a relic of the times when Nottingham was walled, but which now exists in name alone.

Weekday Cross, where stood the old town hall in which justice was dispensed prior to 1888, when a more imposing building was opened in another part of the town. In the centre of the triangle here stood a market cross, around which mediæval butchers sold their meat. The cross has long since disappeared, but the place still bears its name.

A few yards further on is **St. Mary's Church**, a cathedral-like edifice well worthy of attention. The present building is probably of fourteenth century erection, but Norman relics have been found during repairs; and we hear of a previous church which, with its lands, tithes, and appurtenances, was granted, about the year 1100, to the Abbey of Lenton. In plan the church is cruciform, and its style is Perpendicular. Its broad and lofty embattled tower is perhaps the most striking feature of the exterior, and its summit affords a magnificent outlook, which the Roundheads did not fail to make use of two hundred and fifty years ago. It contains a fine peal of ten melodious bells, some of which are nearly three hundred years old, and on which a pleasing carillon is sometimes rung. Both for the number and size of its windows the church is remarkable; a richly-decorated porch, with a stone roof and a number of small stone buttresses, standing on the south side of the church, is sure to arrest attention. Though an evident addition to the original structure, it is apparently of much older date. It is not certain when or whence this beautiful adjunct came, but the suggestion is put forward that it was removed here from Lenton Abbey at the time of the dissolution. Inside the church the full effect of the numerous windows will

readily be seen, the clerestory windows (*i.e.*, those nearest the roof) being set so close together as to appear like one continuous fenestration all along. There are in the church one or two ancient effigies, in memory of bygone worthies of the district. In olden times there were more monuments inside, but they were ruthlessly destroyed by the Puritans, who, by the liberal use of axes and hammers, defaced the decorated walls, demolished the ornaments and pictures, and smashed the beautiful stained-glass windows which used to adorn the ancient church.

Passing out of the church at the eastern gate, and turning to the left, we find ourselves at once in the midst of many warehouses and factories in which is manufactured the famous Nottingham lace; this district is known as the Lace Market.

St. Peter's Church, one of the oldest in the city, is also well worth a visit by those interested in mediæval architecture.

The University College Buildings.—This magnificent pile is devoted entirely to the purposes of education, and was opened in 1881 by H.R.H. the late Duke of Albany. It is of Gothic design, of distinctly collegiate appearance, and cost, with recent additions, over £100,000. The eastern wing is occupied by the Central Free Public Library, containing eighty thousand volumes, and ranking as one of the finest in the country. There is also upon this floor a library of books for the blind, well worth inspection.

On the north side, with an imposing frontage in Shakespeare Street, is the University College, the central entrance of which faces the Free Methodist Chapel and the Poor Law Offices. The college contains, in addition to numerous class-rooms, fine chemical, physical, and biological laboratories, which will well repay a visit. The left façade is in Bilbie Street, and this wing is used as a Free Public Natural History Museum.

The building which adjoins the museum is the well-equipped Technical School, in connection with the college, which was built in 1892, at a cost of £13,000.

Not far from these buildings is the **Arboretum**, a public park and gardens extending over seventeen acres, of which Nottingham is not a little proud. Close to its gates is the lake, and at the side of it are the aviaries, with their numerous and interesting ornithological specimens.

But undoubtedly the finest show-place in the city is the castle, where a reception will be held by the Mayor and Mayoress of Nottingham and the members of the Nottingham Section of the Society.

The Castle.

The first account we find of the castle is that there was a tower here which was defended by the Danes against Alfred the Great and his brother Ethelred.

It was destroyed by fire during the riots in 1831, and for nearly half a century the blackened walls alone remained. In 1878, however, the building was let upon a 500 years' lease to the Corporation of Nottingham for its present purpose.

The Castle Museum.—Aided by private subscriptions, the ruins were thoroughly restored at a cost of £30,000; and when the numerous alterations were completed, it was opened by the



NOTTINGHAM CASTLE.

Prince and Princess of Wales, in July of that year, as a permanent art gallery and museum of decorative art. The building consists of a ground storey of seven large rooms, and an upper storey reached by two great staircases, divided into six galleries, the largest being one hundred and sixty feet long by thirty feet wide. This was the first instance of a municipal body establishing on a permanent basis a museum with associated art galleries for pictures.

The venerable gateway by which we enter the castle grounds is worth attention. It is hoary with age. Around its solid masonry has raged many a strife. Many a king and prince has passed between these very walls; and from these same portals two kings have issued forth to engage in conflict with their

subjects—struggles in which both lost their lives. Richard III. raised his flag of war here in 1485, and marched to Bosworth, where he fell; and Charles I., after raising his standard in the castle grounds in 1643, proceeded to set it up on Standard Hill, outside.

On the ground floor will be found specimens of antiquities, exquisite gems of artistic pottery, lace, gold and silver ornaments, and specimens of oriental and other foreign textile art. The upper storey is occupied by a valuable collection of paintings. There is one water-colour gallery, but most of the others are for oils.

From the castle terrace a magnificent view of the surrounding country is obtained. Just at the foot of the rock, nearly a hundred and forty feet below, lies the Boulevard. A little further out is the canal, and just beyond that the Midland Railway, looking, from the height at which we stand, quite diminutive. Farther away still, the silvery stream of the winding Trent will be descried, with Clifton Colliery, facing the grove in which Kirke White loved to wander and to muse. All around the various parts of the town will be seen. To the west is Wollaton Hall; and nearly twenty miles away, in a southeasterly direction, the lordly and beautiful castle at Belvoir may be descried, if the day be fine.

The visitor should, if possible, go down that curious subterranean passage known as "Mortimer's Hole." It will be recollected that Mortimer, Earl of March, was seized in a secret chamber in the heart of the rock in 1327. Since the murder of Edward II., at the instigation of the earl, the young monarch, Edward III., had been a king in name only. The real power was in the hands of his mother, Eleanor, and the earl; and the kingdom was in a ferment of disorder. It is said that, in the dead of the night, the young king was conducted with armed followers up this passage, and that he surprised and captured the guilty pair. He banished Eleanor for life, and he hanged "gentle Mortimer" on Tyburn gallows. It is, however, not thought now that this is the real "Mortimer's Hole," although it bears the name. The real one leads off from a dark corner of it; but this passage is interesting enough in other respects. It winds about the face of the cliffs, showing here and there an embrasure whence Cromwell's cannon poured forth their devastating shot upon the Cavaliers; and it finally leads down to the road, whence in olden times provisions used to be brought into the castle.

Another interesting place is the old prison, in which, it

may be mentioned, were confined, in the fourteenth century, some Scotch prisoners of note and the Speaker of the House of Commons. The latter was condemned to imprisonment here for life; but after two years Edward III. died and the captive was released. In 1392 Richard II. committed the lord mayor, sheriffs, and aldermen of London to these dungeons, because some Londoners had beaten an Italian, who had offered an objection to a loan to the king. It is said that David, King of Scotland, was immured here by Edward III., but proof of this is wanting.

BURTON-ON-TRENT.

Burton, where the visitors will be entertained to luncheon, owes its position as a town and importance as a commercial centre entirely to the reputation and consumption of the ales manufactured in its numerous breweries.

To trace the history of Burton beer we should have to go back many centuries. That the monks of the Abbey of Burton brewed beer in the year 1295, and were noted for the quality of their "nut brown ale," we have positive proof from a document now extant, in which it is stated that Matilda, daughter of Nicholas de Shobenhale, re-leased to the Abbot and Convent of Burton-on-Trent certain tenements and interests within and without the town, for which re-lease they granted her daily, for life, two white loaves from the monastery, two gallons of conventual beer, and one penny, besides seven gallons of beer for the men, and other considerations.

In the time of Queen Elizabeth its fame had reached far beyond the locality. History informs us that the unfortunate Mary Queen of Scots, in the midst of her troubles, was not oblivious of the attractions of the national beverage, for, when she was confined in Tutbury Castle, the question was asked by her secretary, Walsingham, as to "what place neere Tutbury beere may be provyded for her Majesty's use," to which came the answer from Sir Ralph Sadler, the governor of the castle, "that beere may be had at Burton, three miles off."

Dr. Plott, in his *Natural History*, written two hundred years ago, refers to the peculiar "chemical or natural properties possessed by the Burton waters," from which, "by an art well known in this country, good ale is made, and in the management of which they have a knack of fining it in three days to that degree that it shall not only be potable, but clear and palatable as one would desire any drinke of this kind to be."

In 1630 the fame of the Burton ales had spread to the metropolis, they being sold at "ye Peacocke," in Gray's Inn Lane, at that period; while, subsequently, according to the *Spectator*, it was in considerable demand amongst the visitors at Vauxhall. Upon the opening up of the Trent navigation, by the Act of 1698, Burton ale, which, on account of the previous difficulties attending land carriage, was very rare in London, soon began to find its way to the metropolis by sea; but at this time the sale was of a limited character, the inhabitants of London being supplied by local brewers. The chief benefit that accrued to Burton by the opening up of the Trent was that which arose from the northern trade, the Trent connecting Gainsborough with Hull, and Hull with the northern ports. In 1746 a considerable trade had been established in the Baltic, principally by Benjamin Wilson, the founder of the firm of Allsopp, the ale finding an especially ready sale at St. Petersburg. The Emperor of Russia, Peter the Great, and his Empress, Catherine, were extremely fond of Burton ale, which, in those days, was high coloured and sweet, of very great strength, and especially suited to the Russian palate.

Messrs. S. Allsopp & Sons.—To follow the rapid progress of the firm of Allsopp's would be out of place here. Suffice it to say that the firm have a world-wide reputation and that they are now among the largest ale brewers in the kingdom. In recent years they have become famous for the manufacture of lager beer, and it is to be hoped that the visitor will have time to inspect this most interesting portion of the brewery.

Messrs. Bass, Ratcliffe & Gretton.—The founder of Bass' Brewery was Mr. William Bass, who commenced business as a brewer in the year 1777. The original brewery occupied part of the site of the present "old brewery," and was doubtless on a very small scale.

In 1823 the manufacture of pale ale was commenced. The beer was brewed specially for the Indian market, hence its name, "East India Pale Ale," and it rapidly acquired a wide popularity. This beer was not at first sold in England, and it is said that its introduction to the people of this country was the result of an accident. In 1827, in consequence of a wreck in the Irish Channel of a cargo of about 300 hogsheads, a quantity saved was sold in Liverpool on behalf of the underwriters. The quality was so much appreciated, that the fame of the new "India Beer" spread in a rapid manner throughout Great Britain.

The above short history of the company would be incomplete without a reference to an interesting event, the visit of His Majesty, King Edward VII., to the company's premises on February 22, 1902. His Majesty was staying at Rangemore as the guest of Lord Burton, and on that day drove into Burton and visited the Shobnall Maltings, the New Brewery, and the Steam Cooperage. His Majesty displayed the greatest interest in all the processes which he saw, and at the brewery he pulled over the levers which started a special mash of 400 barrels of extra strong ale, which for 50 years or more will be known as the "King's ale."

The different processes in the manufacture of beer will be clearly described by the gentlemen who conduct the visitors and members over the two breweries.



TUESDAY, JULY 18.

**NOTTINGHAM to HADDON HALL and
CHATSWORTH.**

Leaving at 9.30 a.m., the railway journey to Rowsley carries us through some very fine scenery. The famous district known as "the Peak of Derbyshire" begins in the neighbourhood of Ambergate, where the limestone rocks, the luxuriant foliage and the plentiful supply of running water, so characteristic of the district, come into prominence.

The line runs through Cromford, Matlock and different Derbyshire dales. At Cromford, the birthplace of the spinning jenny, the original loom may still be seen at the spinning mill, picturesquely situated in the valley. Matlock, so famous for its hydros, is one of the principal centres for tourists in this much-visited region, and it is there that the limestone rocks of Derbyshire are seen at their best; the Rowler Rocks, Robin Hood's Stride, the High Tor, form one of the features of the Vale of Derwent, one of the most beautiful streams in the British Islands. Beyond Matlock the line crosses the valley of the Wye, a very fine trout stream, and runs through the wide-spreading and beautiful Darley Dale. North Darley Church, close to the railway station, is a twelfth century structure, containing several features of interest, notably a stained-glass window by Burne-Jones, inserted in 1860. Although the church is seven centuries old, in comparison with the famous yew tree at its entrance it is but as yesterday. Competent authorities regard it as more than two thousand years old, and at its thickest part it is more than 32 ft. in girth. The Darley Dale stone from this district has been used in the erection of many well-known places in the Metropolis—the Albert Memorial, Hyde Park, the Thames Embankment, King's College, and the fountain basins at the Crystal Palace. The Yorkshire lighthouse at Spurn Head is made from it; Liverpool has used it in the construction of St. George's Hall, Lime Street Railway Station, and the Public Library; Manchester and Birmingham have utilised it in the erection of their streets.

Alighting at Rowsley, where there is a fine old Elizabethan hostelry, "The Peacock," at the junction of the Derwent and the Wye, conveyances will take visitors along the river side for about two miles to Haddon Hall.

Haddon Hall.

This famous mansion, among the most attractive of the ancient manorial dwellings of England—beautiful in its surroundings, picturesque in its architecture, and with a halo of romance in its human interest—is situated upon a natural elevation above the banks of the Wye. It is approached from the main road between Rowsley and Bakewell by an old and pretty bridge, and entered by a fine gateway in a lofty embattled tower.



HADDON HALL, DERBYSHIRE, FROM THE TERRACE.

Mr. S. C. Hall thus describes its general plan and architecture :

Haddon consists of two courtyards, or quadrangles, an upper and a lower, each surrounded by buildings. Opposite the gateway are the stone steps that lead to the state apartments ; to the right is the chapel, and to the left the hall proper, with its minstrels' gallery. Of the apartments surrounding the lower court, those on the west side were occupied by the officials of the household ; those on the centre south side were the state rooms. The apartments on the east side of the upper court were those appropriated to the family ; and the rooms over the front archway formed the nursery. There are second-floor rooms in

almost all parts of the building, which, however, is not a lofty one; and there is only one third-floor room—the highest apartment in the Hall—the Eagle Tower. The ballroom covers six ground-floor cellar rooms. The drawing-room is over the dining-room, with a fine view across the lower garden to the open country.

Some portions of Haddon Hall are of undoubted Norman origin, and it is not unlikely that even these were grafted on a Saxon erection. The hall porch, the magnificent kitchen and adjoining offices, the banquetting hall, part of the north-east tower, etc., belong to the next later period, from 1300 to about 1380. In the third period, from 1380 to 1470, were added some portions of the chapel, and the remaining buildings on the east side of the upper courtyard. The next period, from 1470 to 1530, comprises the western range of buildings in the lower court and the west end of the north range.

The first room usually shown to visitors is the so-called chaplain's room, in which are preserved, among other relics, a fine pair of fire-dogs, a warder's horn, huge jack boots, thick leathern doublets, and some cumbrous matchlocks.

The chapel, consisting of a nave, side-aisle, and chancel, contains some Norman work in the arches and pillars of the nave; and close to one of the columns is a Norman font of massive construction, with a curiously constructed cover.

Going through the first courtyard, where should be noticed the grotesquely carved gargoyles, or waterspouts, and ascending the wide flight of steps, is the banquetting hall, or, as it is often called, the great hall. This is a most interesting example of a dining-room in the feudal ages, and with its gallery for the minstrels, and its raised daïs with the long oaken table for the more honoured guests who sat with the lord of Haddon "above the salt," would serve as an illustration for a Waverley romance or a mediæval history.

We go from the banquetting hall to the dining-room, used in the more modern times, when the custom had died out of the lord with his family, friends, and retainers dining in the same room. In this room, opposite the entrance, is a large Gothic window of eight lights, in one of which figure the arms of the Vernons. This apartment is wainscoted, the upper panels being adorned with Gothic tracery and heraldic bearings. Over the centre of the fireplace are the Royal arms of England, with the Prince of Wales' feathers on one side and the arms of the Vernons on the other, while beneath, carved in Gothic capitals, is the motto, "Drede God and Honour the Kyng." Next to the fireplace is an exceedingly beautiful oriel window, fitted with seats, and overlooking the lawns, terraces, and woods of Haddon. No prospect in the hall is quite so delightful as the view from this exquisite window

Over this apartment is the drawing-room, hung with richly worked tapestry, above which is a frieze of ornamental mouldings. In the fireplace is a curious grate, whose alternate upright bars terminate in fleurs-de-lis; and here, too, should be noticed the pair of fire-dogs, with bosses of open metal work of elaborate and artistic design. From this room, with its adjacent bedroom, we pass into the long gallery, or ball-room, an apartment 109 ft. in length and 18 ft. wide, built in the reign of Elizabeth. The semicircular wooden steps of the gallery are said to have been cut from a single tree that grew in Haddon Park. The apartment is wainscoted with oak panelling, and the ceiling, with its carvings in geometric tracery, contains shields and crests of the Manners and the Vernons.

Other rooms shown to visitors are the ante-room, hung with pictures and leading by massive doors to a flight of stone steps, popularly known as Dorothy Vernon's Steps; the state bedroom, hung with Gobelins tapestry, and containing the state bed, richly adorned with satin and green silk-velvet, with exquisite embroidery and fine needlework, and sacred to the memory of George IV., who, when Prince Regent, was the last to sleep upon it; the ancient state room, or page's room, with its wooden frame for the stringing of bows; and the kitchen, an immense room, with the ceiling supported by beams, the central support being a great column of oak. Not too large for what was required of it was this feudal kitchen, with its two enormous fireplaces, its spits, pot-hooks, and tenter-hooks by the score, its chopping-blocks and dressers, its tables of solid oak, six or seven inches in thickness, and its maze of surrounding bakehouses, larders, and pantries; for the lords of Haddon were accustomed to dispense hospitality in the style of "the good old days," the ninth Duke of Rutland, for instance, keeping servants seven score, and having guests and retainers so many that every day the banqueting hall was spread as for a Christmas feast.

Of the surroundings, the gardens are interesting, although neither elaborate nor particularly well kept; the terrace, with what is called Dorothy Vernon's Walk behind and on higher ground, should be visited; and the trouble of a climb to the summit of the Eagle Tower will be amply repaid by the fine view afforded of the surrounding country.

It should be added that Haddon Hall is kept by the owner, the Duke of Rutland, not as a dwelling-place, but as a memorial of national interest, and that he expends £300 annually in keeping it in repair.

Story of Dorothy Vernon.

The chronicles of Haddon tell of peace and hospitality rather than of stirring events. The Vernons derive their name from their original possessions in Normandy; and one of them, marrying in Norman times the daughter of William de Avenall, the owner of the Haddon estate, became eventually the first of the Vernons, lords of Haddon.

For many centuries the story of the Vernons had no place in the national records. Squire after squire strove to excel his predecessor in Old English hospitality, and their most fitting memorials are to be found in the great table of the banqueting hall and the utensils still preserved in the spacious kitchen. Consequent upon the marriage, in Tudor times, of Dorothy Vernon with John Manners, son of the Duke of Rutland, the Vernon estates at last passed into the possession of the Rutland family.

The last of the Manners who used Haddon Hall as a residence was John, second Duke of Rutland, popularly known as "the Old Man of the Hill," who died in 1779. The Duke's eldest son was that celebrated general the Marquis of Granby, who died before his father.

Dorothy Vernon, so runs the tale, was the youngest daughter and co-heiress of Sir George Vernon, whose magnificence was princely and hospitality profuse. "Tradition," writes Mr. Hall, one of the best informed of the Haddon chroniclers, "delights to dwell upon her as the most beautiful of all beautiful women, and certain it is that the influence she cast over Haddon is all-pervading. We may still wander in Dorothy's Garden; we may still pass through the fine avenue known as Dorothy's Walk; while Dorothy Vernon's Door, with its fine bold stone balustrades and its overhanging ivy and sycamore, has heard the whisper of endless pairs of lovers and been transferred to thousands of canvases.

"It was from this beautiful outlet that the heiress of Haddon stole out one night in the moonlight to meet her lover. While her eldest sister, the affianced bride of the second son of the Earl of Derby, was fortunate in her recognised and open attachment, she, the younger sister, was kept in the background because she had formed an attachment to John Manners, son of the Earl of Rutland, a connection opposed by her family.

"She was closely watched, kept almost a prisoner, when, in her own opinion at least, she should have had her liberty.

Her lover, disguised as a woodman, lurked in the woods around Haddon for several weeks, obtaining now and then a stolen glance, a hurried word, a pressure of the hand from the beautiful Dorothy.

“At length, on a festal night, when a throng of guests filled the ball-room, when the instruments played in the minstrels’ gallery, the young maid of Haddon stole away unobserved, passed out of the door which now bears her name, and crossed the terrace to find her lover in the shadow of the trees. Horses were waiting, and Dorothy Vernon rode away with young Manners through the moonlight all night, and was married to him next morning in Leicestershire.”

From Haddon Hall conveyances will, after lunch, convey



CHATSWORTH AND BRIDGE, FROM WEST.

visitors to Chatsworth House, the seat of the Duke of Devonshire, one of the finest specimens of a modern ducal residence, and sometimes called “The Palace of the Peak.” The road lies along the banks of the Wye, through Beeley, where the park is entered. Through the park the Derwent flows from north to south.

The Chatsworth estate was purchased in the sixteenth century by Sir William Cavendish, and it has since been the principal country seat of the Cavendish family. The original house, a quadrangular building with turrets, was built soon after the purchase of the estate, and was on several occasions between 1570 and 1581 the prison of Mary Queen of Scots.

During the Civil War it was by turns occupied as a fortress by both parties.

The present building was commenced by the fourth Earl of Devonshire, afterwards created Duke by William, Prince of Orange, and was completed early in the eighteenth century. The architect employed was William Talman, a pupil of Sir Christopher Wren. In 1820 the sixth Duke added the north wing, and employed Sir Joseph Paxton, of Crystal Palace fame, in designing the arboretum and rockworks, and last, but not least, the orchid houses and the great conservatory. Among those engaged in the decorations were the painters Verrio and Sir James Thornhill, Cibber, the sculptor, and the Watsons, the wood-carvers of Derbyshire. It is, however, believed by many that the designs and a great part of the wood-carvings were the work of the more famous Grinling Gibbons.

Chatsworth is remarkable for its great size and the splendour of its buildings and surroundings; its fountains and pleasure grounds, its conservatories and rockworks; its princely suite of rooms, and the treasures contained in its sculpture and picture galleries.

Crossing the courtyard and entering the sub-hall, the ceiling of which is adorned with a copy of Guido's "Aurora," visitors are conducted by the north corridor to the great hall, around three sides of which is a gallery, having the walls above it painted with scenes from the life of Julius Cæsar, by Verrio and Laguerre. The large table and chimneypiece are both of Derbyshire marble.

The chapel is an exquisitely decorated room. It has a marble floor, is wainscoted with cedar and adorned with wood-carvings of the most artistic kind, said to be the work of Grinling Gibbons.

The Gallery of Sketches has original drawings by Michel Angelo, Leonardo da Vinci, Titian, Raffaele, Albert Dürer, and others.

The Picture Gallery is famous for works of rare interest. Chiefly remarkable are: the wonderful representation by Jan van Eyck (1421) of the Consecration of Thomas à Becket, Murillo's "Holy Family," Paul Veronese's "The Woman Taken in Adultery," Landseer's "Laying Down the Law," and "Bolton Abbey in the Olden Time."

The Sculpture Gallery is adorned with many specimens of the highest art, of which the busts, by Canova, of Napoleon and his mother are conspicuous examples.

The **State Apartments** occupy the whole length of the

mansion, an extent of 750 ft., and are so arranged that they may, when required, be thrown open from end to end. The view from the window of the state dressing-room will well repay attention for the glorious prospect it affords of lawn and woodland, lake and river. Concerning the lake, we read in Timbs' *Abbey and Castles* :

Not far from the splendid buildings which form the present house is a small, clear lake in a secluded spot. . . . This is where Mary Queen of Scots was permitted to take the air. . . . Guards on the steps which led to the retreat; guards beside the lake; guards on the path which led back to her prison; and sentinels on each side of the grated door which had admitted her and was carefully closed upon her and her attendants.

The state bedroom contains a canopy worked by the Countess of Shrewsbury to occupy the tedious time of semi-imprisonment when acting as lady-in-waiting to Mary, Queen of Scots, during her years of captivity at Chatsworth.

In the state music room the visitor will notice the coronation chairs of William IV. and Queen Adelaide; but the most interesting thing shown is the painting of a violin, represented so naturally as hanging from a nail in a door that at a first glance it seems to be a real instrument. The next apartment visited is the state drawing-room, and adjoining this is the state dining-room, whose wood-carving is the most artistic of its kind in the whole mansion. The carvings over the fireplace represent almost everything that belongs to the making of a feast, the arrangement of fish, game, fruit, etc., being of the most skilful and happy description.

Walpole gives Grinling Gibbons the credit for this and other of the realistic wood-carving in Chatsworth, and the guides who show the house to visitors say the same, but the point is doubtful, as it is an undoubted fact that in the accounts of the building of Chatsworth, although the names of all the more noted artists and contractors appear, that of Grinling Gibbons does not once occur.

On the other hand, the advocates of Grinling Gibbons claim that a sum of £14 15s. is shown in his accounts as having been paid for the making of cases for the conveyance from London to Chatsworth of statues, pictures, and carved work; and from this they argue that the carved work from London must have been done by Gibbons alone.

The gardens of Chatsworth are exceptionally beautiful, the grounds being extensive, picturesque and varied. Trees planted by Queen Victoria, the Prince Consort, and other royal visitors

to Chatsworth are shown; the rockworks, planned by Sir Joseph Paxton, are interesting; and his huge conservatory is one of the wonders of the place.

The fountains are supplied by tubes fed by a reservoir on the high ground of the East Moor. The Emperor's Fountain, as the chief one is called in honour of the Czar of Russia's visit to Chatsworth in 1840, throws a jet of water 260 ft. high. The most curious of the fountains is that known as the Willow Tree, an artificial weeping willow formed of copper and lead, and coloured to resemble a real tree, and having a spray of water shooting from its branches.

The present Duchess of Devonshire is conspicuous even among her own charming compatriots as being one of the most perfect of modern hostesses, and every year as Christmas comes round dispenses hospitality at Chatsworth on a magnificent scale.

Edensor.—This pretty little village is made up of inhabitants who are employed upon the Chatsworth estate. Everything in Edensor is exceedingly clean and prim; even the grass by the roadside is lawnlike in appearance.

Its principal feature is its church, rebuilt in 1870 from the designs of Sir Gilbert Scott, R.A. In addition to the usual chancel, nave and side aisles, the church is enriched with the Cavendish Chapel. At the east of this chapel is a fine memorial window, placed by the tenantry in memory of Lord Frederick Cavendish, who went to Ireland as Chief Secretary—"full of love to that country, full of hope for her future, full of capacity to do her service"—and was murdered in Phoenix Park, Dublin, May 6, 1882, a short time after his arrival.

In the chancel there is a monument to the celebrated "Bess of Hardwick," the mother of the first Duke of Devonshire, and an old Elizabethan brass to the memory of John Beton, a confidential servant of Mary Queen of Scots.

Tea will be served at Baslow, a village on the Derwent just as it enters the northern extremity of Chatsworth Park. There is an interesting church here with an Early English tower, but in all probability visitors will not have time to explore it, as they have yet to drive to Bakewell, charmingly situated amidst undulating scenery, in order to catch the train to Manchester, where a reception by the Manchester Section of the Society will be held in the City Art Gallery.

WEDNESDAY, JULY 19.

**MANCHESTER.**

Manchester is undoubtedly an ancient city. It is mentioned as a Roman station (Mancunium) and spoken of at the time of the Norman Conquest in connection with Salford and Rochdale, but the uncertainty of all trustworthy information, especially as regards its origin, renders any account of its early history a matter of doubtful value. We cannot determine when Manchester became a manufacturing district, but it is probable that the introduction of Flemish artificers in the reign of Edward III. is the real starting point. In the thirteenth century there was a fulling-mill, and dyeing yarns or cloth was practised. The fourteenth and fifteenth centuries are mentioned as periods of great progress. Camden, who visited Manchester in the reign of Queen Elizabeth, describes it as "surpassing neighbouring towns in elegance and populousness." Here, he says, "is a woollen manufacture, church, market, and college. In the last age it was more famous for the manufacture of stuffs called Manchester cottons, and the privilege of sanctuary, which the Parliament under Henry VIII. removed to Chester." In 1724 Dr. Stukely describes it

as the largest, most rich, populous, and busy village in England. Here are about 2,400 families, and their trade, which is incredibly large, consists of fustians, tickings, girth-webbs, and tapes, which are dispensed all over the kingdom and to foreign parts.

Another authority of near the same date says :

The inhabitants are not only thrifty and inventive but very industrious and saving—always contriving and inventing something new.

So much for the Manchester of the past. The Manchester of the present is a corporate and parliamentary borough of Lancashire, and was elevated to the dignity of a city in 1847 by being made the see of a bishop and confirmed by Royal charter in 1853. It is situated in the hundred of Salford, on the east bank of the Irwell. Salford is on the opposite bank, and the two boroughs, connected by sixteen bridges, may be considered one city. Manchester is the acknowledged centre of the most extensive manufacturing district in the world, and is

remarkable from being surrounded by a ring of populous suburban townships formed from the overflow of its population. Within a few miles there is a second circle of towns, with populations ranging from 10,000 to 50,000. At a radius of thirty miles is another cluster of towns, nearly all of them manufacturing, and to all of which there is easy and frequent access by a perfect network of tramways, canals, and railways. Its growth in wealth and influence during the last century or so is due to the development of the cotton industry, which in



ROYAL EXCHANGE.

its turn has been aided in a great measure by the marvellous faculty for invention which Lancashire men have possessed. At the present time Manchester is not so much a producing as a distributing centre, and, moreover, cotton is not the only industry in which Manchester is concerned. There are many other important ones in which the city is interested. It is true, however, that all the manufactures depend in the main on the success of the cotton industry. The principal cotton mills and other industries are being removed to the suburbs north and east of the city, and in and around Manchester and

Salford two-thirds of the entire cotton manufactures of the United Kingdom are located.

Manchester was the first place to secure the privilege of inland bonding for articles charged with customs duties, and now produces a large and increasing revenue from that source.

From a health point of view Manchester is not very satisfactory; the death-rate is high, a condition of affairs due in a great measure to the overcrowding in many parts of the city; there is a consequent waste of infant life in spite of the earnest endeavours of the Corporation and philanthropic societies to help the people to healthier conditions of existence. Of course, it must be remembered that thousands of people spend their days in the city and have their homes outside, thus depriving the Registrar-General of some redeeming features in his health statistics. It is satisfactory to find that in 1903 the death-rate was the lowest yet reached.

There is probably no finer municipal building in Europe than the **Manchester Town Hall**. It has been called a "municipal palace," and no one in Manchester questions the fitness of the title. The style of the building has been described as "thirteenth-century Gothic, suffused with the feeling and spirit of the present age." The distinguished designer (Mr. Alfred Waterhouse) claims that the building is "essentially of the nineteenth century, and adapted to the wants of the present day." It took nearly eleven years to build. The foundation-stone was laid in October, 1868, and the building was opened with much pomp in September, 1877.

"There is nothing like it so far as I know," the late Mr. John Bright said on the opening day; "whether you look at its great proportions outside, or its internal decorations, or you look at the costly monument which is raised by it, there is nothing like it that I know of in any part of the United Kingdom, and I doubt whether there is in any of the great famous old cities on the continent of Europe." Touching the question of cost, it may be said that, reckoning the value of the land and the money paid for the buildings that had to be removed from the site, the cost is not less than a million pounds. The reception rooms, banqueting chamber, Lord Mayor's parlour, and the council chamber are on the first floor, and command a view of the Albert Square. The great hall is in the centre of the building, and is in truth a "magnificently-decorated chamber." It is 100 ft. long and 50 ft. wide. The fine organ at the back of the platform was built by Mons. Cavaillé-Coll, of Paris, at a cost of £5,269. The ceiling of the hall is richly decorated with

heraldic bearings, principally of the cities and countries associated with Manchester in trade matters. After the Royal arms come the heraldic devices of the Duchy of Lancaster, Manchester, Salford, France, Russia, Austria, Prussia, Norway, Denmark, Holland, Egypt, Belgium, China, Japan, the United States of America, India, Australia, West Indies, and Canada, etc. Around the room are the remarkable series of frescoes illustrative of the city's history, with which the name of Ford Madox Brown will ever be associated. They represent: (1) The Romans building a fort at Mancunium; (2) the baptism of Edwin, King of Northumbria and Deira, at York, in the year 627; (3) the expulsion of the Danes from Manchester about the year 910; (4) the establishment of Flemish weavers in Manchester in 1363; (5) the trial of John Wycliff, the "Morning Star of the Reformation," about the year 1324; (6) a proclamation regarding weights and measures; (7) William Crabtree watching the transit of Venus, 1639; (8) Humphrey Chetham's life dream; (9) Bradshaw's defence of Manchester against the troops of King Charles in 1642; (10) a scene from the life of John Kay, inventor of the fly shuttle; (11) the opening of the Bridgewater Canal; (12) John Dalton collecting marsh gas.

The **City Art Gallery** in Mosley Street, where a reception will be held by the members of the Manchester Section, was formerly known as the Royal Institution. It is a noble Doric edifice, erected in the years 1825-30 from the designs by Sir Charles Barry, its object being to diffuse a taste for the fine arts by exhibiting works of art of the highest class, and to encourage literary and scientific pursuits by means of popular courses of lectures. In the year 1883 the proprietors of the institution handed it over to the Corporation on condition that they should have the right in perpetuity of nominating seven of their number to form, with fourteen members of the City Council, the Art Gallery Committee. The Council at the same time undertook to spend, for twenty years, not less than £2,000 a year in the purchase of works of art. There is a permanent gallery of paintings and sculpture free to the public, and there are periodical exhibitions of works of art.

The Manchester Corporation enjoy a well-earned reputation for the very excellent way in which they have managed the question of the water supply, and, connected with it, the hydraulic power supply, the electricity works, the gas supply, and the arrangements for the treatment and disposal of sewage.

The Water Supply.—Manchester derives its water supply from two sources, the Longdendale Valley and Thirlmere

Lake. For Longdendale reservoir the Pennine Chain is the chief gathering-ground. It is 859 acres in extent, and its storage capacity about 6,000 million gallons, representing, roughly speaking, about 140 days' supply. The water is of excellent quality, and for bleaching and dyeing purposes is said to be almost unrivalled.

Nearly thirty years ago the Corporation looked ahead, in view of the growing needs of the people, and obtained possession of Lake Thirlmere in the Lake District. This water is brought to reservoirs at Prestwich, over a distance of ninety-six miles. When the works are completed the lake will yield 50 million gallons per day. It is intended eventually to have five distinct lines of piping, each carrying ten million gallons daily.

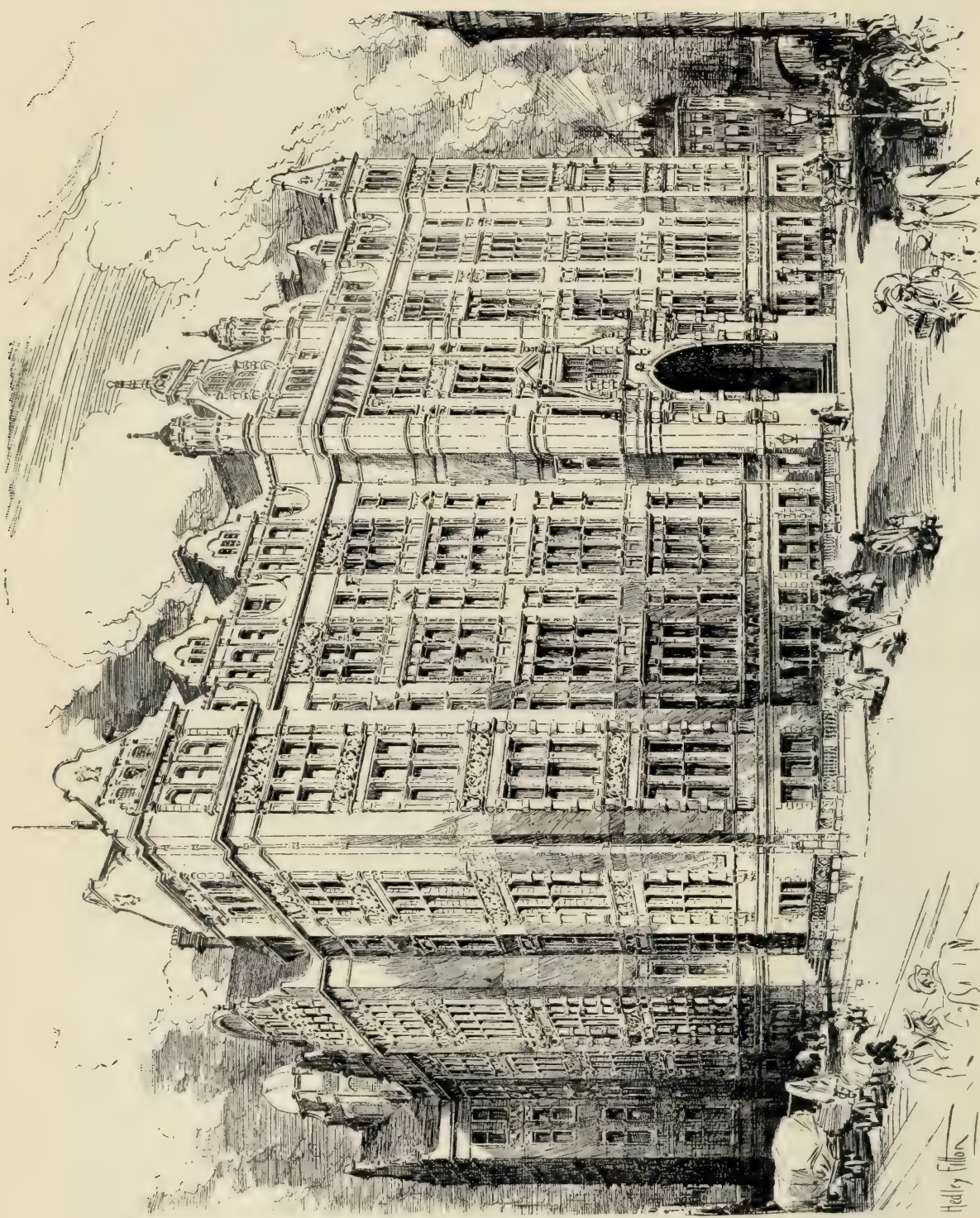
The Waterworks Committee of the Corporation have established two pumping stations for the supply of hydraulic power. In the Whitworth Street works there are six steam pumping engines, each of the triple-expansion, surface-condensing type, and at the Pott Street station there are six more, similar in make and power. The work of this department is gradually but surely increasing, the number of machines connected showing an increase from 58 in 1894 to 1,739 in 1904.

The capacity of the **Corporation Electricity Works** is more than sufficient for present requirements. The demand for electric current for power purposes as well as lighting is, however, steadily increasing, and the Electricity Committee hope that before long they will have the plant fully engaged. The city area is supplied with continuous current direct from two stations, situated in Bloom Street and Dickinson Street respectively, which contain a total of 30,000 h.p. The places bordering on the city receive their supply from the Stuart Street works. At Bloom Street the boilers, of the water-tube type, number eleven, and there are four engines, each of 3,500 i.h.p., driving continuous-current generators of 1,800 kw. capacity, for lighting or traction. At the Dickinson Street works there are eighteen boilers of the Lancashire type and four of the water-tube type, for the supply of steam to engines of varying types and powers.

The Gas Supply.—The gasworks of Manchester were established in 1817 by the Police Commissioners, who at that time were the governing body of the town. In 1843 they passed into the possession of the young municipality, and have been managed most successfully ever since. A great impetus to gas consumption has resulted from the

Committee's policy of supplying gas cooking stoves free. Gas is manufactured at three great centres—Gaythorn, Rochdale Road, and Bradford Road works. The Bradford Road works are by far the largest, and cover an area of fifty-three acres. There are two retort houses, and the manufacturing capacity is about eight million cubic feet. The coke storage apparatus consists of one 30-cwt. steam-power swing crane with boiler, and housing of corrugated iron (for the protection of the driver), mounted upon the end of a platform of wrought-iron girders. It is capable of dealing with 200 tons in twenty-four hours, hoisting one ton at each lift, conveying, tipping, and piling the coke 40 ft. high in the form of a conical ring, 200 ft. in diameter at the base, and containing about 7,000 tons. The carburetted water-gas plant is complete. The producing apparatus has a total capacity of 6,500,000 cubic feet per day. The works are provided also with the requisite plant for the testing of coal and general research work in methods of manufacture. A plant of a capacity of forty tons per day, in two sets, for the conversion of ammoniacal liquor into sulphate of ammonia, and a plant for the manufacture of sulphuric acid, of a capacity of eighty tons per week, has likewise been erected at this station.

Sewage Works, Davyhulme.—The Rivers Department of the Manchester Corporation have charge of all the arrangements for treatment and disposal of sewage; a task of enormous difficulty. A vast sum has been spent in the endeavour to deal with the sewage problem, and the Committee believe they have found a satisfactory solution. Including storm water, the average daily flow of sewage for the year 1901, which may be taken as indicative of other years, was 34,071,019 gallons, whilst the average daily dry-weather flow was 25,700,000 gallons. Until the last few years the treatment was by chemical precipitation, but that is rapidly giving place to the bacterial system. Experiments were made with satisfactory results, and the City Council four years ago sanctioned the construction of new works at Davyhulme, on the banks of the Ship Canal, a few miles from Manchester. The works are designed to deal with a maximum rate of flow equal to 126 million gallons per twenty-four hours, the flow up to half this quantity being treated by double contact on the bacteria beds, and the other half on twenty-six acres of storm-water filter beds. The number of first contact beds is ninety-two, each measuring half an acre. The effluent passes into the Ship Canal.



MUNICIPAL SCHOOL OF TECHNOLOGY.

The fine building in Sackville Street known as the **Municipal School of Technology**, with its adjunct, the Bleaching, Dyeing, Printing, and Finishing School for textile goods, and for paper-making, is a striking instance of the enterprise of the Corporation, and of the successful development in the city under its auspices of the means and methods of technical instruction and training. The school is designed to accommodate the mechanical, electrical, and sanitary engineering industries, the chemical and textile industries, architecture and the building trades, printing, and other less important trades and industries. It is a serious attempt to place at the service of English industry and commerce, an institution which shall be adequate to their needs and importance, and comparable in respect of equipment with the great institutions of the United States and the Continent. The value of the sites, structures, and equipment of the two buildings exceeds £300,000. The Corporation owe the admirable site on which the school is placed to the liberality of the legatees of Sir Joseph Whitworth, Bart., who also added a gift of £5,000 towards the equipment. In addition, a sum of nearly £14,000 was received from the profits of the Royal Jubilee Exhibition.

The building is of imposing proportions, and has its chief public entrance in Sackville Street, leading to a spacious central entrance hall (laid in marble tiles, and furnished with fine examples of antique sculpture), and thence to the main staircase. On the left of the main entrance are the administrative offices, comprising the general office, the principal's rooms, and the council chamber, the remainder of the ground floor being allotted to the various classrooms and laboratories connected with the physics and textile departments. The principal feature of the first floor is the large central hall for examinations or public lectures, and adjoining it are the library and reading rooms, a room for scientific societies' meetings, laboratories, class and lecture rooms for mathematics, and for electrical, mechanical, and sanitary engineering, and the lecturers' common room. The second floor contains spacious lecture rooms, drawing rooms, and laboratories in connection with engineering, architecture and the building trades, the photographic and printing crafts, and electrical engineering. An experimental bakery, the students' common room, and the restaurant are also placed on this floor. The organic and inorganic chemical laboratories, the principal chemical lecture theatre, laboratories for metallurgy and brewing, and the woodworking, plumbing and sanitary en-



MUNICIPAL SCHOOL OF TECHNOLOGY.

gineering workshops are placed upon the third floor. On the fourth floor are arranged the dyeing laboratories, an experimental brew-house, a well-equipped gymnasium, a house painting and decorating workshop, and rooms for bookbinding and lithographic drawing. The astronomical observatory, situated above the fourth floor at the north-east corner of the building, is equipped with an equatorial telescope. The basement is one great workshop and laboratory for spinning and weaving, and for mechanical and electrical engineering, including laboratories for experimental motors and dynamos, steam and gas engines, hydraulic appliances and testing of materials.

The building in which is installed the department for the bleaching, dyeing, printing and finishing of textile goods, and for the manufacture, dyeing and finishing of paper, is erected on a plot of land contiguous to the main building. It is equipped, in addition to the technical laboratories, with an extensive experimental plant, by English and foreign makers, for carrying out investigations on a "works" scale in all the processes mentioned.

Manchester University.—It was only last year that Manchester became the seat of a university. Its famous college (Owens) was the chief of the three constituent colleges of the Victoria University, founded in 1880. That connection was broken by Liverpool in 1903, and now all three (Owens Liverpool, Leeds) have been raised to the dignity of a university. Manchester retains the prestige attaching to the Victoria University, which is continued in this city under its new charter, with the addition of the words "of Manchester" to its title.

The foundation of Owens College was due to the liberality of a Welshman, John Owens, who died in 1846, leaving by will £100,000 to be expended in founding an educational institution of the highest class; in 1870 a further sum of £90,000 was expended on new buildings; and in 1880 the Royal charter for the founding of Victoria University was granted. At the present time it is excellently equipped and staffed. The medical school buildings are at the rear of the college, and the physical laboratories, which were designed by Mr. Beaumont, architect of the city, are in Coupland Street, divided by a roadway from the other departments of the college. The chemical department was recently enriched by the gift of the fine laboratory, specially designed for research work by the late Dr. Schunck. Earl Spencer is Chancellor of the University,

and Dr. Alfred Hopkinson, K.C., Principal of Owens College, is Vice-Chancellor.

Considering the resources of Owens College for scientific training, and the Municipal School of Technology and School of Art for education in art and in the application of art to industry, Manchester is now second to no city in the United Kingdom in the adequacy of its equipment and in its facilities for giving the best possible instruction in science and art in their relation to the great industries and world-wide commerce of which the city is the centre and life.



THE CATHEDRAL.

The **Cathedral** of Manchester is not a cathedral in the sense in which that word is usually understood, as in reality it is an enlarged parish church. It was formerly known as the Collegiate Church, and was built early in the fifteenth century ; it is a fine old Gothic structure, and between 1845 and 1868 underwent complete restoration in its original style. It comprises a perfect stalled choir of exquisite beauty, a retro-choir, lady chapel, lateral chapels, chapter house, and a tower 139 ft. high, with ten bells.

Chetham Hospital.—Quite close to the cathedral stands a relic of old Manchester—the Chetham Hospital and Library. These institutions owe their existence to Humphrey Chetham, a successful Manchester merchant who lived early in the seventeenth century. At one time they formed the residence of the Warden and Fellows of the Collegiate Church. It afterwards became the property of the Earl of Derby, but during the Civil War it was confiscated and occupied by the Cromwellian troops. In 1653, the trustees of Humphrey Chetham bought the buildings and converted them into a library and a hospital, or school for the education and maintenance of poor boys. At present about 100 poor boys are educated here, who (like the Christ's Hospital boys), wear the quaint garb in vogue in their founder's days.

Under the same roof practically is the **Chetham Library**, which holds the distinction of being the first public free library in Europe. It contains some 50,000 volumes, some of them exceedingly rare. Among the most treasured possessions are a bible which belonged to Bradford, the martyr, and a missal which was once the property of John Wycliffe. The reading-room is a fine specimen of an old English hall, and is itself well worth a visit.

Overlooking the playground of Chetham College is the grammar school, founded in 1515 by Hugh Oldham, Bishop of Exeter. The number of boys now attending the school is over 800. It is richly endowed with scholarships and prizes tenable at the universities.

The John Rylands Library.--The wonderful library which Mrs. Rylands recently built and endowed as a memorial of her husband, the late Mr. John Rylands, for many years a leading merchant in the city, stands on the western side of Deansgate, one of Manchester's best known streets, reconstructed some thirty years ago and constituting the "Regent Street of the city." The building was designed by Mr. Basil Champneys in the style of architecture known as English Gothic. It is a pity that it was not placed in a better position, as the beauty of the building cannot be seen to advantage where it is. The library contains more than 80,000 volumes, some of them the rarest in the world. It comprises the famous Althorp collection, which Mrs. Ryland bought from Earl Spencer.

Manchester was the first borough to take advantage in 1852 of the Free Libraries Act, and perhaps at the present time no town in Britain is better furnished with good libraries and reading rooms. The reference library in particular is specially appreciated and contains more than 128,000 volumes.

The Chemical Works of John Riley & Sons.

To visit these interesting and typical chemical works the visitor leaves Victoria Station at 9.22 a.m. for Hapton. The first feature is the plant for the manufacture of sulphuric acid, comprising the sulphur burners, "Glover towers" and chambers. Beside the "Glover towers" the "Gay-Lussac towers" will be shown, and the purification and concentration of the crude acid. In this connection it may be noted that Messrs. Riley & Sons were the first to adopt the use of platinum vessels in the concentration of sulphuric acid.

Another branch of the chemical industry carried on is the manufacture of alkali, including caustic soda, carbonate of soda, refined soda ash, caustic soda liquor, soda crystals, and other chemicals required for calico printing, dyeing, soap making, etc. The various processes in connection with the preparation of these chemicals will doubtless be followed with much interest.

It is to be hoped that the visitor will have time to inspect the "Chance" process for the recovery of sulphur from "vat waste," and the "Weldon process" for the manufacture of bleaching powder.

John Ormerod & Sons, Ltd.

To visit these works memoers and their friends will depart from Victoria Station for Castleton at 10.35 a.m. Messrs. Ormerod & Sons are manufacturers of belting, roller skins, buffalo and leather pickers, picking bands, loom fittings, and leather sundries used in the textile trades.

The business was founded in 1868 by John Ormerod in Cheetham Street, Rochdale, for the manufacture of leather belting.

A department for the manufacture of roller skins was added in 1874, when the business extended to such an extent that a removal was necessary, and the first of the present buildings was erected at Castleton in 1876.

Since this date many other additions to the premises have been made, until now the available floor space within the buildings amounts to over 82,000 square feet.

The six departments of belting, roller skins, buffalo pickers, leather pickers, loom fittings, picking bands, and leather sundries are each under the direct supervision of a member of the firm.

The works are fitted up with the most modern appliances for the purpose of the business in every department. Several of these departments are driven by motors, the current being generated on the premises by a three-phase alternating current plant.

Many of the machines are their own invention and have been built on the premises.

The Salford Ironworks.

Messrs. Mather & Platt, Ltd., of the Salford Ironworks, occupy a leading position in reference to all sorts of engineering work. Besides making various machines used in the textile industries for hydraulic and pumping operations, they have given special attention to the developments in electrical engineering during the last twenty or thirty years, and are now recognised as one of the first firms in the kingdom for the production of all kinds of machinery of which electricity is the motive force. They have provided the electrical equipment of many railways, including the City and South London, the Snaefell Mountain Railway, the Blackpool and Fleetwood tram-road, and the Douglas and Laxey Railway. One of their latest achievements is to make a swing bridge over the River Weaver, the opening and closing of which is effected by an electric motor working on to a continuous wire rope.

The works have been extended and adapted as circumstances required. The visitors will probably see a great variety of machinery completed or in course of construction, including electric motors, hydraulic machines, electric hoisting, hauling, and conveying machinery, well-boring and pumping plant, in addition to textile machinery. Twenty years ago Sir William Mather, head of the firm, arranged with Mr. Edison to manufacture the Edison dynamo at these works.

Messrs. Salis, Schwabe & Co. (Branch of the Calico Printers' Association).

The visitor who is interested in cotton dyeing and printing operations will appreciate the opportunity of inspecting the works of Messrs. Salis, Schwabe & Co., calico printers, situated at Rhodes, near Middleton. The operations carried on at these works include the bleaching, mercerising, printing, dyeing, and finishing of cotton piece goods.

The engraving department of the works includes a plant for the electric deposition of copper on iron shells for the purpose of making engraving rollers, which are less costly than those made entirely of copper. A plant for the manufacture of caustic soda and its concentration by means of multiple-effect evaporators is included in the works equipment.



MANCHESTER SHIP CANAL—SALFORD DOCKS.

The Manchester Ship Canal.

A few notes descriptive of the Manchester Ship Canal will be found in the proceedings of July 21, when the Liverpool end of the canal will be visited.

In the evening, at 7.30, a dinner will be given at the Grand Hotel, the Chairman-Elect of the Manchester Section presiding.

THURSDAY, JULY 20.

VISIT TO CHESTER.

Members and their friends leave Liverpool and Manchester at 9.14 and 9.25 a.m. respectively, and meet at Chester.

The visit to the "rayre olde citye" of Chester ought to prove specially interesting to our American and Colonial visitors, for there is no place in the kingdom where the quaint and historic has been so consistently preserved, and where the exigencies of modern life are in every conceivable direction shaped by the methods of a bygone age. The old is everywhere preserved, and the new is designed to match, whether it be a house, a business establishment, or any other kind of structure, thus preserving for the city its ancient character—preserving it to such a degree that Chester stands out uniquely from every other city in the British Isles. Here may be seen the old steps and parapets, the old stairways, alcoves, ingle-nooks, just as they stood three hundred years ago. Here are still the old leaden and latticed windows, shedding their sparing light on the heavy oak panelling, which, by the application of bees-wax without stint and years of polishing, has become black with age and bright as metal. All these evidences of the past should prove specially interesting to those who come from the modern towns of America and the Colonies.

There can be no doubt that a British city existed on the site of the present Chester long before the beginning of the Christian era, but, as the name indicates, it is first known to history as a Roman station. That it was of prime importance is shown by its simply being called Chester ("Castra," or "The Camp"), without any distinctive prefix. The Roman occupation probably began about the end of the reign of Claudius, A.D. 50-54, and shortly after we find it occupied by a full legion. The Roman forces were withdrawn about the year 400 A.D. It remained in the hands of the native Britons until the battle of Chester in 507, when it passed into the possession of the Saxons, from whom it was wrested for a time, about 200 years later, by the Norsemen. It was the last English city to yield to William the Conqueror in 1069. For the next 300 years it

was frequently the base of operations by the English against the Welsh, and in 1645 Chester sustained a long siege at the hands of the Parliamentary forces, during which King Charles stayed in the city for some time, and from the leads of the Phoenix Tower witnessed the disastrous defeat of his army on Rowton Moor. From this date to the present day there is no account of military operations in Chester.

Modern Chester is still surrounded by the entire circuit of its ancient walls, nearly two miles round, 7 or 8 ft. thick, and forming a promenade with parapets where two persons can walk abreast. The ancient gateways have all been rebuilt. The castle, with the exception of "Cæsar's Tower," has been removed, its site being occupied by barracks and county buildings. The Dee is crossed by two bridges—the old, picturesque bridge of seven arches, and the new or Grosvenor Bridge, with a noble single arch of stone 200 ft. in length. Suburbs of villas have recently arisen outside its walls, and a public park was opened in 1867. On the common called the Roodee there is an important racecourse.

Chester has manufactures of lead, oil and chemicals, and iron foundries. The making of boots and shoes forms an important industry.

To particularise the many historic objects to be seen in the city—objects which belong to the Roman, Saxon, Norman, and Mediæval periods respectively—would involve more space than lies at our disposal, but the visitors, on arriving from Manchester at Northgate Street Station, will be met by Messrs. Henry Taylor, F.S.A., Robert Newstead, and Wm. Fergusson Irvine, F.S.A., who have kindly volunteered to personally conduct the party and explain the various features of interest to be noticed on the tour. These gentlemen have arranged the following interesting and comprehensive itineraries:

TOUR NO. 1.—Blue School, Bridge of Sighs, Roman Fosse and City Wall, Cathedral, (return to) City Wall at Northgate, Morgan's Mount, Pemberton's Parlour, Barrow Field, Water Tower, Roman Hypocaust, Roodeye and Roman Quay, Watergate, Stanley Palace, Bishop Lloyd's Palace, God's Providence House, Crypt.

TOUR NO. 2.—Blue School, Bridge of Sighs, Roman Fosse and City Wall, Cathedral, St. Peter's Church, Old Houses and Rows of Bridge Street, The Falcon, The Bear and Billet, Bridge Gate, Dee Mills and Causeway, The Groves, Wishing Steps, Newgate, St. John's Church.

The authoritative information which will be given by the leaders will not require to be supplemented by a guide-book, but a few preliminary remarks on some of the more salient points may be found of interest.

A Blue-Coat Hospital was established in Chester in 1700, under the auspices of Bishop Stratford, and seventeen years afterwards the citizens erected a pleasant habitation on part of the site originally occupied by the Hospital of St. John. But the old premises having fallen into decay, in 1854 the fabric was restored as it now stands.

The little statue over the doorway—a portrait of one of the “Blue Boys”—is a study from the life by Richardson, of London. The day boys have been abolished, and the school made one for boarders only, who are educated, lodged, boarded, and clothed free of charge, preference being given to orphans or boys with one parent only.

Passing from here over the canal bridge, a smaller one will be observed parallel to that on which we are standing. This has been called the “Bridge of Death,” and may be appropriately designated, after the memorable bridge in Venice, the Chester “**Bridge of Sighs.**”

It was across this bridge that felons about to die usually went from Northgate Gaol to receive the last offices of the Church in the Chapel of St. John, on the opposite side of the chasm.

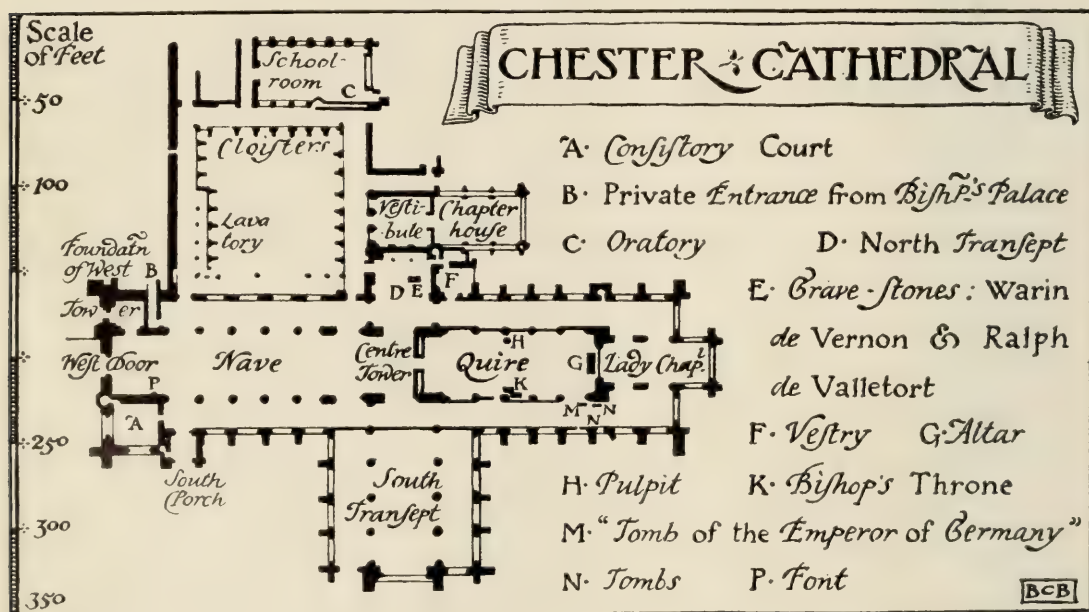
Walls of Chester.

No town in England can boast of walls so perfect and so continuous as Chester, and the walk round them on a fine and clear day is never to be forgotten by the visitor. These may be safely accepted as mainly of the Edwardian period, although they present work of other times. It is claimed that substantial remains of the original Roman fortifications are still visible to the eye of faith, and we have no doubt that Roman work may be still underneath part of the present walls, and that stones hewn by Roman masons may be built into their structure. As they now exist they afford a continuous promenade round the city, and are the only complete specimen of that order of ancient fortification now remaining in our islands.

The old portion of the city consists principally of four streets, running from a common centre to the opposite points, and each

terminated by a gate. These streets were excavated several feet below the surface of the rock whereon the town was built. On their level are shops and warehouses, and above these are galleries on each side, open in front and balustraded. These were called "**The Rows.**"

The back courts of the houses are on a level with these galleries, and above them the superstructure again projects in a line with the shops below ; so that the appearance presented by the street is as if the first floors in all the houses were open and communicating with each other. This is in strict conformity with the Roman mode of building, in which the cryptæ and apothecæ were sunk, and the vestibula and ambulacra formed a covered way above them. These rows do not form a regular gallery. Sometimes, indeed, one is obliged to stoop in going through a small house, while in another the space is quite lofty. In one house the row is lower than in the preceding one, and there are steps to descend. A handsome iron railing fronts the street in some places, while in others there is only a worm-eaten paling. In the better houses the supporting columns are strong and covered with antique ornaments, while in the others the wooden piles seem hastening to decay.



Chester Cathedral.

The see of Chester was one of the five Mercian bishoprics. In 785 it was incorporated with Lichfield. In 1075 the episcopal see was transferred again to Chester for the life of a single bishop, but it was not till the reign of Henry VIII., in 1541, that it became an independent bishopric. At that time

the church of the dissolved Abbey of St. Werburgh was converted into a cathedral. It is believed that this abbey was founded as early as 660 by Walpherus, king of the Mercians, for his daughter Werburgh. The site of the present cathedral was at the time of the Conquest occupied by a house of secular canons, who were expelled by Hugh, the first Earl of Chester, in 1093, to make way for a Benedictine monastery, which continued until 1538, when it was dissolved by Henry VIII., and the abbey church made the cathedral church of the newly-erected see of Chester.

The curious watch-tower, called **Morgan's Mount**, has a lower chamber, level with the footway of the walls, and an open platform above, accessible by a few winding steps. During the siege of Chester a battery was planted on the platform of this tower, and, from its commanding position, and surrounded by earthworks, it successfully checked the approach of the besiegers in its neighbourhood. Mounting to the platform the visitor obtains a fine view of a large tract of country.

On the walls of Chester is a ruined tower, originally more than twice its present height. This was in days gone by called the "Goblin's Tower," but for what reason history does not state. It is now known as **Pemberton's Parlour**. The tower is semicircular, but whether this was the original form seems doubtful. In 1720 the tower was in so ruinous a state that a great part of it was taken down, and the remainder repaired and re-cased on the outside.

Passing Pemberton's Parlour, the visitor sees on the left, through a grove of trees, a large and verdant mead, still retaining its ancient name of the "**Barrow Field**," or "Lady Barrow's Hey." This is understood to be the place where the soldiers of Rome went daily through their military exercises, and where, 1,500 years afterwards, great numbers of the citizens who died of the plague were hurriedly interred. During the excavations made in 1858 several Roman graves of high interest were discovered, together with numerous vases, lamps, ornaments, and coins. The tiles forming one of these Roman graves have since been placed in the adjacent public grounds, and, as nearly as possible, according to their original arrangement, to give strangers a notion of the form and character of these early interments. The Barrow Field, where these curiosities were found, was a few years ago purchased by public subscription, with the twofold object of a pleasant resort for the citizens and a sanatorium for the convalescents from the adjoining infirmary.

A pile erected in 1322 by one Helpstone, a mason, consists of a higher and lower tower, the former being distinguished by the high-sounding name of **Bonewaldesthorpe's Tower**, and connected by a steep flight of steps and an embattled way with the lower tower, called the **Water Tower**. This latter tower was erected while as yet the tidal waters of the Dee flowed up to the walls of the city, and within the memory of man the rings and bolts were seen about the old tower to which, centuries ago, the ships that came up to the city were moored. This corner of the city's defences was of no small importance, and the annals tell us that the full fury of the Roundhead battery, planted on Brewer's Hall hill yonder, was long directed against the spot. And, although terribly pounded and shaken, the Water Tower remained erect, whilst the hearts of its defenders remained unfaltering through that fierce and lamentable struggle.

The visitor who wishes to tread the **Roodeye** (or **Roodee**) may conveniently descend from the walls for that purpose at the Water Gate—so called from the Dee having originally flowed up to this point. This is a fine meadow of about seventy acres in extent, and in ages gone by the commerce of England was borne along it up the Dee to the very walls of Chester. In those days the lawn was covered at every tide, with the exception of the bank or eye of land near the centre, which, being surmounted by a plain substantial stone cross (around which clings an old legend), acquired the name of the Roodeye—the island of the cross.

Now the Roodeye is chiefly famous for the great May race meeting, which has been held here every year for centuries past.

Passing the end of Nicholas Street is a small and altogether insignificant entry or passage. This leads to a small court, along the west side of which stands the ancient palace of the Stanleys, now sadly fallen from its original uses. This mansion was the city residence of the Stanleys of Alderley, a family of note in the county, and now ennobled.

The portion of the palace remaining presents three gables towards the court, and these are beautifully designed and extremely well carved and ornamented. It was erected in 1591, and is unquestionably the oldest really good specimen of timber architecture in Chester. The sombre dignity of its exterior pervades also the internal construction of the mansion, the large rooms, with panelled walls and oaken floors, and the massive staircase pointing out the taste and wealth of its original owners. At a recent date this interesting building was

in danger of being destroyed, but the Chester Archæological Society purchased it, and so preserved it.

In Watergate Street stands one of the most remarkable of the old houses in Chester, and one which perhaps has no



parallel in Great Britain. This building is commonly called **Bishop Lloyd's House**, but the reason why seems somewhat doubtful. The date, 1615, and a coat of arms carved on the front panels seem to favour the idea, for Bishop Lloyd lived up to this date, and the coat of arms resembles that belonging to

his family. The rest of the panels contain curious carvings of Scripture subjects.

Another celebrated structure, known as **God's Providence House**, originally erected in 1652, is found in Watergate Street. The front, as it now appears, is a modern restoration of the original one, and we are assured that everything modern about it is in exact conformity with the old work. There can be no doubt that this house belonged to a family of some consequence, for a coat of arms ornaments the beam under the upper window. On the main beam under the gable is the inscription:

GOD'S . PROVIDENCE . IS . MINE . INHERITANCE.

According to popular belief, the inscription was added after the plague which ravaged the city during the seventeenth century. Tradition says that this was the only dwelling in Watergate Street which the plague passed over, and in gratitude for that remarkable deliverance the owner had the inscription carved on the main beam. There is nothing impossible or even improbable in the tradition, but it is not authenticated in any way.

No visitor to Chester should leave without paying a visit to the **Old Crypt** in Bridge Street. Prior to 1839 no special archaeological interest attached to this locality; but in that year, while excavating for a warehouse behind the shop of Mr. J. E. Newman, cutler, a discovery was made which at once interested all the antiquaries of Chester. The late Rev. J. Eaton, precentor of the cathedral, an antiquarian authority in his day, made a report upon this "Old Crypt," as it is called, for the use of the proprietors. To these gentlemen—and particularly to the present owner of the property—the public are indebted for having preserved to this day so interesting a relic of mediæval Chester, and for so courteously permitting visitors to inspect the structure. The report says:

"The lower parts of several of the houses in the four principal streets of Chester exhibit indubitable signs that they have been built on the remains of the religious buildings with which, prior to the Reformation, this city abounded.

"This ancient crypt, discovered by Messrs. Powell and Edwards, is of an oblong form, running from east to west. It was partially lighted through the upper part of the west end, in which there are three small windows, divided by stone mullions and protected by iron bars. The upper part of the groining on the centre window appears to have been cut away to admit of more light. On examining the groins, marks were discovered

on the stonework, showing that a couple of lamps had been used for lighting. The entrance to the east end is by a flight of steps cut out of the rock to the height of 3 ft. On the south side is a Gothic doorway, which is attained by three or four semicircular steps, and forms an outlet within its inner and outer wall by another flight of steps to the surface above the building. In a niche on the south side of the window is a sculptured stone, probably a font, in excellent preservation."

The architecture would appear to be of about the end of the twelfth or early part of the thirteenth century; probably if we date this crypt as being erected about the year 1230, we shall not be far from the era of its construction.

At the end of the north side of Watergate Street stands the church of **St. Peter**. It was against the south side of this church that the ancient Penthouse, or *Pentice*, of the city was constructed, and in front of which the brutal "bull-bait" took place. It seems quite certain that where St. Peter's Church stands the ancient Roman *prætorium* was placed, and it is probable that soon after the Roman occupation ceased a Christian church was erected here. At all events, it seems certain that a Saxon church, dedicated to St. Peter, stood here at the time of the Norman Conquest.

At the corner of Cuppin Street stands one of the most interesting of the old houses in Chester. This is known as the **Falcon Inn**, and was erected at the end of the sixteenth century, although it seems almost certain to have been a rebuilding of an earlier edifice, and to have been a copy of it in all essential features. The arrangement of the steps which lead to the first floor, under a massive stone arch, seemingly older than the rest of the building, is unique in Chester. The Falcon Inn has recently been carefully restored, at the expense of the Duke of Westminster, and is well worthy of a careful inspection.

Close to the Bridge Gate is the **Bear and Billet**, a grand mansion of about the middle of the seventeenth century. This belonged to the Earls of Shrewsbury until the year 1867. This remarkable specimen of half-timber architecture appears to have been erected in the year 1664. While the Talbot family were sergeants of the adjoining gate a suite of rooms was always reserved in this house for the use of the members of the family whenever they visited Chester to assert their ancient rights. This house was much frequented by travellers during the good old coaching days.

Bridge Gate was erected in 1782 at the expense of the corporation, in place of the old and ponderous gateway which

previously occupied its site. The old gate is quoted in deeds as far back as the twelfth century, and appears to have been granted by the Norman Earl Randle and his Countess, to one Poyns, their servant, for some meritorious but unrecorded service. From his successors it passed, through Philip le Clerc, to the families of Raby, Norris, and Troutbeck, until the honour of "custodian of the Bridge Gate" became vested at length in the Earls of Shrewsbury, who until 1867 owned that fine old timber mansion adjoining the gate, and who in the seventeenth century sold their right of serjeantry to the corporation of Chester.

Crossing over the Bridge Gate, the visitor has a view of the **Dee Mills**, a massive pile of gloomy buildings resting on the south-west end of the Old Bridge. The Dee Mills existed on this very spot shortly after the Norman Conquest, and were for centuries a source of immense revenue to their owners, the earls. Edward the Black Prince, as Earl of Chester, granted them for life to Sir Howel-y-Fwyal, constable of Criccaeth Castle, for his gallant conduct at the battle of Poitiers, since which time they have passed through successive owners to the corporation, who possess them.

The **Causeway**, or weir, is recorded to have been first built by Hugh Lupus, the Conqueror's nephew, probably about the time of the foundation of the Dee Mills. It stemmed the tide of the Dee and withstood all opposition until the period of the Commonwealth, when we find an order of Parliament commanding the destruction of both Causeway and mills. But the Puritanical order appears to have been derisively set at nought; at all events, it was never carried out.

EXCURSION ON THE RIVER DEE TO EATON HALL.

This excursion will give visitors an opportunity of seeing something of the exceptionally good and well-managed boating arrangements of the famous River Dee.

After the steamer passes under Queen's Park Suspension Bridge, the Groves—which usually present a very animated scene—are reached, and a little way up is situated the boat-house of the Royal Chester Rowing Club. The rising land above used to be called Billy Hobby's Field, and possesses a well of pure water; it now forms part of the Grosvenor Park.

The meadows on the right were formerly known as the "Earl's Eye," and though now protected by a low embankment, used to be covered with water at every tide.

Shortly after the bend in the river is passed the place known as the Fords is reached. This is a wide and somewhat shallow part, which during the Roman occupation of Chester was a properly constructed ford for the passage of man and beast. Remains of the Roman way are said to be visible when the water is low and very clear. Roman rings have been found here, which are preserved in the collection of the Chester Archæological Society in the Grosvenor Museum. The "Long Reach" is now entered, where the regatta is held, the starting-point being Heron Bridge. The steamer passes Heron Bridge, and about a mile and a half further up reaches Eccleston Ferry. This is the landing-place for visitors going to

Eaton Hall,

the famous home of the Grosvenors, and one of the largest sumptuous residences in Great Britain. The Hall, as it now stands, is practically the fourth mansion which has occupied the spot. In 1867 the Duke of Westminster decided to entirely rebuild the exterior of the Hall proper and to largely extend the buildings. This was entrusted to Mr. Alfred Waterhouse, R.A., and under his directions extensive alterations and additions were carried out.

A colossal equestrian statue in bronze occupies the centre of the courtyard, and represents the great Hugh Lupus, the nephew and friend of William the Conqueror and the ancestor of the Duke of Westminster.

From Eccleston the steamer will proceed to Iron Bridge, where afternoon tea will be served before the return journey to Chester.

After arriving at Liverpool, a dinner will be given at 7.15 p.m. at the State Restaurant, the chairman of the Liverpool Section presiding. At 9 p.m. there will be a reception by the Lord Mayor of Liverpool at the Town Hall.

THURSDAY, JULY 20, and FRIDAY, JULY 21.

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LIVERPOOL.

The name Liverpool first occurs in a deed of 1190; the etymology is not improbably the Cymric "Llyvrpool," "the expanse of the pool," or "the pool at the confluence." The Derby (Stanley) and Sefton (Molyneux) families, whose mansions are only a short distance from the town, have from the earliest times been intimately connected with the borough and city. Several members of both families served the office of mayor in the sixteenth, seventeenth, and eighteenth centuries.

The rise of Liverpool is remarkable; in the middle of the fourteenth century it contained only 840 inhabitants and 168 cottages, whilst in 1561 its population was only 690. It was not until 1647 that Liverpool was made a free port (having been subject down to that date to the Chester officers), and it was not erected into a separate parish until 1697, when its population numbered about 5,000 and its shipping about 80 vessels. Between the years 1710 and 1760 the population and shipping increased greatly, and from 1760 to 1800 the increase was even more marked, in the latter year the population being 77,700 inhabitants and the shipping consisting of 5,000 vessels. The chief cause of this extraordinary progress was the rapid growth of the cotton industry. Simultaneously with the mechanical revolution brought about by Hargreaves, Arkwright, Crompton, and others, there came an increased foreign trade, and an augmented inland business owing to the opening of the Bridgewater Canal in 1771. About the same period, too, a great start was given to the shipbuilding trade of the port by several extensive orders received from Government.

But great as was the progress made during the closing years of the eighteenth century, it was far exceeded in the nineteenth; in 1881 the population was 552,500, and now it is 716,810.

The effect of the Manchester Ship Canal on the trade of Liverpool has not been so injurious as was at one time expected. It does not follow that what Manchester secures Liverpool loses; and the more economical management of the dock estate and the reduced railway charges which the competition of the canal enforces, may, in the long run, actually bring more business to Liverpool.

Liverpool's gigantic trade has given rise to the magnificent system of docks extending along the margin of the river for a distance of nearly six and a half miles. The whole of the docks (except the Salthouse, King's, and part of the George's and the Queen's) have been built since 1812, and are regarded as among the great engineering triumphs of the nineteenth century. There are in the vicinity several extensive shipbuilding yards, iron and brass foundries, chain cable and anchor smithies, engine works, tar and turpentine distilleries, rice and flour mills, tobacco, cigar, and soap manufactories, breweries, sugar refineries, roperies, glassworks, chronometer and watch manufactories.



LIVERPOOL—LIME STREET.

The architecture of the town has been greatly improved in the latter half of the nineteenth century, and it now possesses many fine thoroughfares thronged with splendid edifices. The domed **Town Hall**, where members of the Society of Chemical Industry and their guests will be received by the Lord Mayor on the evening of July 20, is built in the Corinthian style, and is the oldest public building in Liverpool; it was erected in 1754, but has since been considerably enlarged.

St. George's Hall is a grand building in the Græco-Roman style. Mr. Norman Shaw, R.A., says that "its simplicity makes it all the more impressive, and, whilst striking to the

eye, the design is full of refinement, and in it we have a building for all time one of the great edifices of the world." It was originally designed by Mr. H. L. Elms, but was completed from designs by Mr. John Cockerell. Standing, as it does, on rising ground, several feet above the level of the streets leading west and south, it has every chance of being seen to the best advantage.

At the north end of St. George's Hall an interesting group of buildings may be seen, comprising the **Walker Art Gallery, Museum and Public Library**, and the **County Sessions House**. The column, 155 ft. high, bearing the single word "Wellington," might also be mentioned. This is a favourite spot for out-door meetings. The statue of the Duke, 14 ft. in height, was cast from cannon taken at the battle of Waterloo.

The visitor who travels from end to end of the seven miles of Liverpool Docks by the **Overhead Electric Railway** will realise what a great convenience the line must be to the business man and dock worker.

The dock system is so vast and, moreover, increasing so rapidly that this unique electric railway is now quite indispensable.

The line, which was opened by Lord Salisbury in 1893, with the exception of two short distances—first, where it reaches the ground level so that a siding of the Lancashire and Yorkshire Railway may pass over it, and secondly, when it passes through the tunnel near Dingle station—is built entirely on an iron viaduct which skirts the line of docks. It is the first railway of its kind in Europe. The electric current is generated at the central station at Bramley Moore Dock, and transmitted along the conductors between the lines of metals, from which it is taken up by collectors placed under the coaches. The trains are each made up of two roomy carriages, and the modest fares of 3d. (1st class) and 2d. (2nd class) are charged for any part or for the whole distance.

The **Liverpool University**, designed by Waterhouse, occupies a site of four acres, with handsome red-brick frontage to Brownlow Hill. The view of this enormous building from Mount Pleasant is very fine. Until recently this was the local college of the "Victoria" University of the North of England, the two other constituent colleges being at Manchester and Leeds respectively. For many years local feeling ran high in favour of creating an independent university for Liverpool, and eventually, in 1903, the persistent enterprise and public spirit of the pioneers of higher

education in Liverpool was rewarded by the granting of a Royal Charter. The Library, containing about 40,000 volumes, with its timbered roof and pleasant recessed rooms for study, was the gift of Sir Henry Tate. A bronze bust of the donor may be seen inside the Tate library, facing the door. Among other sections of this fine building are a great hall, 68 ft. long by 30 ft., a senate chamber 27 ft. square, and a large lecture theatre and reading room; also there has been lately added, at a cost of about £32,000, the Thompson Yates laboratories for the physiology and pathology departments; a school of hygiene; a zoological museum; a botanical laboratory, the latter being the gift of Mr. W. P. Hartley; the George Holt physics laboratories; the new medical school; and the Johnston laboratories, chiefly for the use of the School of Bio-Chemistry, the School of Tropical Medicine, the Cancer Research, and the Institute of Comparative Pathology. These laboratories were the gift of Mr. Wm. Johnston, shipowner, who also endowed the chair of bio-chemistry and three fellowships.

The School of Engineering is quite a feature with its laboratories and workshops.

The Chemical Department is a handsome building standing alone, equipped with the latest apparatus for education and research. Facilities are provided for acquiring a practical acquaintance with chemistry in its highest scientific and special technical branches, as well as for securing a thorough training in the elements and principles of the science. The William Gossage laboratory, together with lecture rooms, gas-analysis room, electro-technical room, have recently been erected. The new laboratory for physical chemistry, the gift of Mr. E. K. Muspratt, is in course of erection.

With regard to the School of Tropical Medicine it is only necessary to mention the name of one of its distinguished Professors, Major Ronald Ross, C.B., F.R.C.S., who, in consideration of his brilliant researches in pathology, became the recipient of one of the Nobel prizes some few years ago.

The handsome Jubilee tower was, as its name suggests, commemorative of the year 1887, and built by subscription. The fine chiming clock was given by Mr. Hartley. A statue of Christopher Bushell, a generous supporter of the college, executed by Bruce Joy, stands in the entrance hall, which, with the staircase leading to the Tate Gallery, is faced with Doulton tiles. On one of the landings is a fine medallion in bold relief of George Holt, "Benefactor, Counsellor, Friend; Founder of the Chairs of Physiology (1891), Pathology (1894)."

JULY 21.

EXCURSIONS.

Excursion at 10 a.m. on the White Star tender *Magnetic* will start from the famous Liverpool landing stage. The present structure replaces one which was burnt in 1874.

A considerable portion of the area of the stage is occupied by waiting rooms, refreshment rooms, and offices of various kinds. It measures a little less than half a mile in length, and is formed of two distinct parts, which, however, to all intents and purposes are practically one. At the south end there is the George's, and at the north end the Prince's Stage, the greater portion being under the latter name.

Recently, by dredging operations, the river by the stage has been deepened, so that the Transatlantic liners are enabled to come alongside to embark and disembark passengers.

There is communication with the mainland at certain points along the entire length of the stage by iron bridges, of which there are seven. The Floating Bridge, as it is called, forms the chief entrance for vehicular traffic going to or from the city. Space is reserved on each side for foot passengers also. This bridge floats on pontoons, and is constructed to meet the rise and fall of the tides of the Mersey, which are such that at one time, on disembarking, passengers find themselves almost on street level, and at another have a considerable ascent to make before they reach the roadway.

At the south end of the stage, the gangways lead to St. George's Pierhead, which directly faces the city. Here is a convenient pavement and ample covered-in space to meet the stress of traffic, which at times is very great at this spot.

The Prince's landing stage is connected by covered ways with the Prince's Parade, as it is called, which occupies a similar position to that of George's Pierhead, but overhead there is a covered way, and in front the spacious riverside station, built expressly for the Transatlantic traffic. On leaving the landing stage the steamer will make for the Cheshire side of the river, having the line of Liverpool docks on the left hand, and the thickly populated and growing district of Wallasey on the right. The line of docks on the Liverpool side extends

nearly seven miles, with a total lineal quay space of over 25 miles.

Nearing **New Brighton Pier**, the lofty tower modelled on the plan of the Eiffel Tower, and some 562 ft. in height, is very prominent. Opposite the pier, at the seaward end of the line of docks, is the **North Fort**, the most formidable of the Mersey defences, in which are mounted several guns of the largest and most modern construction.

New Brighton is a favourite seaside resort of the excursionist; it faces the Irish Sea and commands a good view of the Welsh Mountains, and endless amusement is afforded by the constant stream of craft of every variety that passes up and down the river. The New Brighton Tower, where luncheon will be served, stands amid grounds which have become very popular.

At New Ferry those members who visited the soap works of Lever Brothers at Port Sunlight will be embarked and the steamer will proceed to **Eastham**, and the **Manchester Ship Canal**, that triumph of modern engineering skill. It is, perhaps, the most notable achievement in Great Britain from an engineering point of view during the last fifty years—certainly as far as Manchester is concerned and the district of which Manchester is the centre. It extends from Eastham on the Mersey to Manchester, a distance of $35\frac{1}{2}$ miles. There are five sets of locks, the highest being at the Manchester Docks, seven swing bridges, and two high level bridges carrying various main roads across the canal. Traffic can be conveyed in railway waggons from the various loading and discharging berths at the docks and other places on the canal to any railway station in Great Britain; the canal is in direct communication with all the inland navigations of the country. The whole of its banks are suitable for wharves, as 26 ft. of water is always maintained alongside.

Port Sunlight Works and Village.

Messrs. Lever Brothers started in Warrington in January, 1886, the output of that factory being twenty tons per week.

The first sod at Port Sunlight was cut on March 3, 1888.

In June, 1889, the firm began business at Port Sunlight, the output being then 800 tons per week. The present capacity is over 3,000 tons per week.

Port Sunlight estate covers about 239 acres, of which 66 acres are occupied by works, and 173 by village and land. The number of employees at Port Sunlight works alone averages

3,000 male and female, but during busy seasons the total number of hands is close upon 3,500.

The Printing Department is first visited, where the Baron rotary card-box machine may be seen. These machines print card-boxes from the reel, in five colours, cutting, scoring, and punching. Each machine can produce 400,000 Sunlight cardboard boxes in a week of forty-eight hours.

There are also a number of double-colour printing machines (sixteen) printing card-boxes. On the opposite side of the alleyway are the flat-bed single-colour machines, of which there are about forty of various sizes. Near the top of the room are three Cottrell rotary machines. One machine will print in two colours, on both sides of the paper, cut, fold, and insert 20,000 sheets, each consisting of sixteen pages, per hour. At the top of the room is a large "Derriey" machine for special work.

The folding and pinning machines, cutting machines, Johnston die presses, and linotype, which are all driven by separate electric motors, will also be found in this room. There are two laboratories in these works, one being exclusively used for testing and analysing raw materials and soaps—finished and in various stages of manufacture—the other is set aside for chemical and engineering work.

On leaving the laboratory the soap works are entered.

In the **Card-box Department**, the wrapper printing, sorting and cutting, card-box punching, pinning, glueing, and bundling will be found of considerable interest. There are over forty wire-pinning machines and twenty glueing machines in this room and the extension above the printing room. Eight million card-boxes can be turned out in one week.

In the **No. 1 Wood-Box Room**, the making of nailed boxes and lock-cornered boxes and the printing of boards is carried on. The empty box-conveyor is worthy of notice. The greater part of the timber is imported in bundles, cut to exact lengths and widths, and as many as 20,000 cases can be turned out in a working day.

Passing through the **Engine House** we come to the **Wharf**, where the loading and unloading is carried on. The wharf has a frontage of 1,400 ft., and the dock holds 25,000 tons of water on a 20-ft. tide. The dock was opened in July, 1898.

The **Oil Store Tanks** are on the left. There are thirty-three of these, each having a capacity of 500 tons of oil.

If the weather be suitable, a splendid bird's-eye view of the works and village may be obtained from **No. 1 Soapery Tower**.

In the **Pan Rooms** there are upwards of 100 large "pans" or "kettles" having a capacity of over 3,000 tons per week.

In **No. 1 Frame Room**, the cutting, stamping, wrapping, and packing of soap tablets is carried on; here alone there are thirteen power-driven stamping machines, and tablets are stamped at the rate of 180 per minute on each machine. Allowing for stoppages for cleaning, oiling, etc., the output is equal to over 1,000,000 twin tablets per day.

In the **Central Electric Power and Light Station** the power plant consists of: one set Corliss cross-compound condensing engines (by Yates & Thom), cylinder 46 in. diameter, l.-p. cylinder 23 in. diameter, stroke 4'0 in., generator on main shaft (by British Thomson Houston Co.) 450 k.w. at 300 volts; one set of cross-compound condensing engines (by Marshall), h.p. cylinder 16 in. diameter, h.p. cylinder 28 in. diameter, stroke 3'0 in., belt-driven generator (by British Thomson Houston Co.) 250 k.w. at 300 volts; one set high-speed vertical compound condensing engines, with combined generator, 250 k.w. at 300 volts. The lighting plant consists of: two sets Willans & Robinson combined engines and generators each of 30 k.w.; one set Clayton combined engine and generator of 80 k.w.; one "Booster" balancer set for three-wire lighting current taken from power circuit; one set of accumulators. Three boilers for the above are all fitted with mechanical stokers, working steam pressure 120 lbs. per square inch. There are forty-eight Lancashire boilers in batteries at most convenient places, besides numerous crane and portable boilers.

In **No. 1 Well House** the pump supplies the works with fresh water of first-class quality. The bore is about 500 ft. deep, and the pump throws 30,000 gallons per hour. **No. 2 Well** is a duplicate of this, but is worked on the American air-lift principle.

Leaving the works at the fire-station gate the **Fire Station** may be inspected.

The **Gladstone Hall** is close by, which was opened by the Right Hon. W. E. Gladstone, November, 1891.

The **Lever Free Library and Museum** was opened in 1903.

Passing the **Workmen's Club Bowling Green** and **Girls' Institute** we come to **Hulme Hall** (Girls' Restaurant), opened July, 1901. This hall accommodates and supplies 1,500 girls at one time. In the east wing girls are provided with a tray, teapot, cup, teaspoon, and a supply of boiling water free of

charge. They bring all their own food. In the centre and west wing dinners and other refreshments are provided at very cheap rates.

Formerly the schools were used for religious services on Sundays, but in June, 1904, **Christ Church** was opened.

There are five **Swimming Baths**, and the **Gymnasium**, not long completed, is divided into three halls, providing accommodation for men, boys, and girls respectively.

Members and guests taking part in this excursion are invited to lunch in the **Girls' Institute** by the firm.

In the evening the party leaves at 7 o'clock for York, dining *en route*.



YORK.

Arriving about 10 p.m. from Liverpool.

JULY 21—22.

From the very dawn of history there seems to have been a town or village on the angular piece of ground formed by the confluence of the Ouse and the Foss. Previous to the Roman conquest little is known about it, not even its name, but there is much probability about the conjecture that the Roman Eburacum was derived from Aberach, "the field at the river mouth." In Saxon and Danish days it was called by various names, such as Eoferwic, Yorewic, Urewic, Iorvik, of the last three of which would easily contract into "York."

The annals of the Roman colonia of Eburacum are scanty, but they—no less than the relics dug up in various parts of the city—attest the importance of the settlement. It was for many years the capital of Roman Britain, and was probably at all times the military centre of the province. The original camp was rectangular and enclosed by walls provided with four gates, and four towers at the angles; the remains of one of these may still be seen. As the need for additional space was felt, twenty acres more were enclosed by pushing forward one of the walls and thus converting the original rectangle into an irregular pentagon; but as security and wealth grew under the *pax Romana*, the city overflowed its walls. Villas bordered the principal roads that ran from the gates of the *Castra*; the road to the south (which crossed the direction of the present Tadcaster road at a very acute angle), was a *via sacra* and seems to have had tombs and monuments on both sides to a considerable distance from the city.

Though York never again attained to the pre-eminent position it held during the Roman occupation, it remained down to recent times a city of first-rate importance, and has been connected with countless events in English history.

In paying a short visit to York the visitor should certainly see something of the **Minster**, the **antiquities** in the grounds of the **Manor House**, the **city walls**, and **Clifford's Tower**.

The **Minster** first arrests attention from its magnificence and from its intimate connection with the history not only of

the city but of the country. It is uncertain whether any building of the nature of a cathedral existed in York during the Roman occupation, but it is probable that there was something of the kind, as we find early mention of a bishop. Bishops of Eburacum were present at the Councils of Arles (314 A.D.) and Nicœa (325 A.D.), but of the history of the church in York we have no record; in all probability the number of Christians was not large, for no remains have been found of any place of worship of theirs, nor has any object been unearthed bearing any Christian symbol. After the withdrawal of the Romans, Christianity was speedily swept out of the north by the Anglian conquest. Early in the seventh century the Saxon King,



ON THE OUSE AT YORK.

Edward, embraced Christianity, and was baptised by Paulinus in a small wooden chapel erected for the purpose. The king immediately began to build a stone church, but before it was finished he fell in the battle of Hatfield, and his successor Oswald finished the first historical cathedral in York before the middle of the seventh century. In 669 this church was restored and beautified by the famous Archbishop Wilfred, but about seventy years later it was destroyed by fire. Archbishop Abert (767) rebuilt the cathedral, but during William the Conqueror's harrying of the North it was again destroyed in 1069.

Part of the central wall of the present crypt is said to be a relic of Archbishop Albert's cathedral.

In 1070 Thomas of Bayeux was consecrated to the see.

He began by repairing the old building. Later, however, he built from the foundations a church that, after 400 years and through change upon change, more thorough at certain periods than was usual even in mediæval times, ended in the production of the existing magnificent cathedral. There have been few alterations since. Some damage was, of course, done at the Reformation, and some, though much less than usual, during the Civil War. York surrendered to Fairfax on the express condition that the churches were not to be defaced; while modern restorations and additions have, as a rule, been carried out in the most conservative spirit. Owing to the constant wars with the Scots, and the consequent presence of the Sovereign and the leading statesmen in the North, York occupies a conspicuous place in English history. Parliament frequently met in the city, and the minster was the scene of many interesting events. Here William of Scotland in 1175 was entrapped by Henry II. into doing homage for his kingdom. Here in 1221 the Princess Joan, daughter of King John, at the age of eleven was married to Alexander II. of Scotland. Here in 1282 Margaret of England and Alexander III. were married, both being under eleven. A happier event was the marriage in 1328 of Edward III., who was seventeen, to Philippa of Hainault, who was fourteen. Margaret Tudor, in 1503, on her way to be married to James IV. of Scotland, rested in York. Many English sovereigns have at different times visited the cathedral. Richard I. and Richard III. were frequent visitors, as were Henry VII. and Henry VIII., and so great was the affection of Charles I. for the minster that he presented the chapter with £1,000 for a new organ.

The principal feature which strikes us about the cathedral is its general grandeur and dignity. Its collection of stained glass is the most perfect and extensive in the country.

The gardens of the Yorkshire Philosophical Society contain the **Roman Multangular Tower**, the ruins of **St. Leonard's Hospitium**, and those of **St. Mary's Abbey**.

The ruins of **St. Leonard's Hospitium** are the first seen by the visitor on entering the gardens. It was founded by Athelstan after the decisive victory of Brunanbach (A.D. 937), who, finding certain Culdees engaged in charitable work, ordered the building of a hospital, to be worked by them, and endowed it with a thrave (24 sheaves) of corn from every carucate of land in the diocese of York. William Rufus enlarged the hospital and built a church which, like the hospital, was dedicated to St. Peter.

It grew rapidly, and the work it entailed began to demand a more undivided attention than was consistent with the carrying on of the minster services. Stephen had the hospital rebuilt and dedicated to St. Leonard instead of St. Peter. This marks a definitive administrative break with the minster, and we find the brethren who had charge of the hospitium dissociated from those who served at the cathedral offices. A survey taken in 1280 still exists, and from this it appears that the infirmary contained 229 patients; the institution also contained an orphanage, which sheltered twenty-three boys. Its suppression in 1539 was one of the most wanton of the many acts of spoliation and barbarity that disgraced Henry VIII.'s dissolution of monasteries. On leaving these ruins the visitor comes directly upon a portion of the **Roman Wall of Eburacum**, and terminating in one of the towers that formed the angles of the original fortifications of the camp. The plan of this tower shows ten sides of a nearly regular thirteen-sided figure, hence the tower is generally known as the "multangular tower." The tower was largely patched up in mediæval times, when it formed part of the city walls. A part of the Roman wall can be traced in a north-easterly direction, almost at right angles to the portion first encountered. Except for a fragment near Monkgate Bar, the multangular tower and portions of adjacent wall are all that is left above ground of the Roman fortifications of Eburacum.

The history of **St. Mary's Abbey** reaches back to Saxon times. About 1050 Earl Siward (the conqueror of Macbeth) founded a minster in memory of St. Olaf, which, at the devastation of the north by William the Conqueror, was ruined. In 1087 Stephen, a monk of Whitby, came to York and claimed the protection of Alan of Brittany, Earl of Richmond; by the latter he was granted the ruined minster of St. Olaf and four acres of land adjoining. Stephen at once proceeded to found a Benedictine monastery. William Rufus in 1098 confirmed and enlarged the grant, and laid the foundation for a new church, which he dedicated to the Blessed Virgin Mary; the neighbouring parish church, which was for centuries served by the monks of St. Mary, still bears the name of St. Olaf. A new and larger choir was built by Simon de Warwick, and the rest of the church was also rebuilt, but we have no record of either the date or the builder. In consequence of frequent disputes with the citizens, it was found necessary to surround the abbey buildings and precincts by a wall with towers and fortified gates. This was done in 1266, and the greater part of this wall

still remains, though much obscured by houses that have been built up against it. By strenuous efforts and considerable expenditure the Yorkshire Philosophical Society has cleared some parts of it to view. At one angle of the wall may be seen the tower which was mined by the besiegers at the siege of York (1644). It was suddenly blown up and a large number of archives and valuable documents stored in the tower destroyed by the explosion; the tower was hastily rebuilt, but not in its original form. Another interesting relic of past days is the gateway in the other end of the wall, of which the last mentioned tower forms an angle. This was made in honour of Princess Margaret, daughter of Henry VII., who on her way northward to marry James IV. of Scotland, broke her journey by staying a night in St. Mary's Abbey. The monastic building was surrendered to the King in 1540; some parts of it he pulled down and were used by him for the erection of a palace and banqueting hall; the latter, now serving as a schoolhouse, still exists. The great gateway of the abbey is left; on its right are the remains of an old chapel, adjoining the church of St. Olaf called "**St. Mary at the Gate**," which probably gave the suburb of Marygate its name. On the left of the gateway stands the gatehouse; it was the house of the porter of the abbey and the lower part served as a prison for refractory monks or tenants. In the lower part of the grounds, facing the river, will be found another of the abbey buildings, the so-called "**Hospitium**," now used as a museum of antiquities. Closely adjoining it is an archway which served as the water-gate of the abbey.

The **Manor House** or **King's Manor** is, strictly speaking, part of St. Mary's Abbey, and is within the abbey walls, but is not under the care of the Philosophical Society, being now used as a school for the blind. In the old days a building was required which should serve occasionally as a lodging for the Sovereign should he visit the city, and permanently as the headquarters of the President of the Council of the north. The Abbot's house was set apart for this purpose, and some remains of this building are still to be seen in the present Manor House.

The **City Walls** should be as fully explored as time permits. In York, as in many old towns, the word "gate" is used in its original sense of a way or road, not for that which closes or obstructs the road. The structure commonly known as a gate is in York called a "bar," thus "Micklegate" is the mickle or great road, and where this road pierces the walls we have

“Micklegate Bar.” The walls, which in most places are built on an earthenware rampart and further protected by a ditch, encircle all the city except for a break of about 500 yards along part of the course of the river Foss, the ground outside the city at this point being, until modern times, a morass; a wall was here unnecessary. As to the age of the fortifications little can be said with certainty.

The city was fortified to a certain extent in the days of the Conqueror, and some parts of the existing walls may date back to the time of William Rufus, but the greater part must be assigned to the beginning of the fourteenth century.

Clifford's Tower is situated inside the famous York Castle. The mound on which this tower stands is said to have been crowned by a Danish fort destroyed by Athelstan. The Conqueror built a castle on this site, and another on a sister hill across the river, and garrisoned both strongly. Both were taken in the revolt of 1069, and the garrisons were slaughtered. The castle was rebuilt and strengthened, and in 1190 was the scene of one of the most terrible tragedies recounted in history—the notable massacre of the 500 Jews in York at the coronation of Richard I.; the castle which at that time was destroyed by fire was rebuilt by Robert de Clifford about the middle of the next century, and was thenceforth known as “Clifford's Tower.”

If possible the visitor should find time to inspect Micklegate Bar. As the gate closing the great road to London, this has always been accorded a pre-eminence amongst the city gates. For this reason the limbs and heads of traitors were exposed on its turrets. In Edward II.'s time the Earl of Carlisle was quartered, and one quarter of the body was affixed to the summit of the gate. About the end of this reign the same fate befell Hugh de Spencer, the King's favourite. In Henry V.'s reign the head of Lord Scrope was exposed after his execution on a charge of conspiracy. Llewelyn, Prince of Wales, Richard, Duke of York, the Earl of Devon, Thomas Stafford, with many others of lesser fame, had their remains treated with similar indignity. In 1746 the heads of William Conolly and James Mayne, who were among the ten men executed in York for having taken part in the rebellion of 1745, were exposed, and remained there till 1754, when they were secretly taken down and buried by William Arundell, a York tailor.

It is difficult to leave so historical a city as York without even mentioning such objects of general interest as the **Guildhall**, the **Merchants' Hall**, **Holy Trinity**, **St. Mary**,

Petergate, the **Shambles**, and countless others, but space will not permit of it in this short sketch, and we must proceed to say a few words about the more modern erection of **Messrs. Rowntree's Cocoa Works and Estate**. Proceeding from the station to the city the visitor may note, adjoining Lendal Bridge, the original works (established in 1838) of Messrs. Rowntree & Co., and no more striking indication of the rapid development of their business can be conveyed than the visitors' comparison of these, their Nos. 1 and 2 Factories, with the present extensive works known as the Haxby Road No. 3 Factory.

The building of the Haxby Road Works, which covers about nine acres, was begun in 1890, and the steady demand for increased accommodation has resulted in repeated additions, culminating at the present time in the seven-storey, steel-frame structure just erected to the north-west of the main factory.

The design and construction of the Haxby Road buildings is of the most modern type. The large, well-ventilated work-rooms, the extensive dining rooms, the provision of gardens, allotments, football and cricket fields for outdoor recreation, are indications that in the equipment of the factory the comfort of the employees has been carefully considered.

After the inspection of the works and estate members and friends will partake of luncheon at the Guildhall.

The afternoon will be spent in making an excursion to Ripon and Fountains Abbey, leaving York at 2.40.

Ripon

is one of the most ancient ecclesiastical centres in Yorkshire, and vies with the city of York and with Beverley in the interest of its association with the early history of Christianity in the county.

The city is said to have received its first charter from King Alfred in 886, and this was probably an extension of the trades guild founded in earlier Saxon times, the Liberty of Ripon having been granted by Athelstan. Later kings from time to time confirmed and added to the privileges accorded. The charter-horn, by which the Liberty of Ripon was formerly secured, is still blown every evening at the mayor's residence, and afterwards at the market cross.

The ecclesiastical history of Ripon begins about 660, when Celtic missionaries founded a monastery there. The Council of Whitby in 664 established Roman usages in opposition to

those of the Celtic Church. The monks of Ripon, called upon to conform, preferred to leave the monastery, which was handed over to Wilfred, who was afterwards canonised as the patron saint of Ripon. He was a staunch adherent of the Roman Church, and became in 669 Bishop of Northumberland, with his seat at Ripon, but a few years later the see was subdivided and sees established at York, Hexham, and Ripon. The latter, however, soon became incorporated with the York diocese, and remained so till 1836, when it was re-established by the Ecclesiastical Commissioners.

The church at Ripon probably shared in the complete devastation of the Vale of York by the Conqueror, and its history is for a long time a blank. After the Conquest the Archbishop of York sometimes resided at Ripon.

To Archbishop Thurston (1114-1115), one of the heroes of the Battle of the Standard, is attributed not only some of the Norman work of the church, but also the foundation of Fountains Abbey, of which we will speak later.

The city was visited by Edward I. on one of his many warlike journeys. Henry IV. came hither with his court when the plague was raging at Westminster. Here, too, came Charles I., on his way to be crowned at Edinburgh, and upon other occasions later in his reign. Unfortunately the Parliamentary troops occupied the minster and demolished the glass of the east window. One of the chief features to be noted with regard to the cathedral is "St. Wilfred's Needle," in the Saxon crypt; it is probably the oldest piece of work, as it certainly is the oldest complete chamber attached to any English cathedral.

The unusual width of the nave is remarkable, and is accounted for by the fact that, as originally built, the present church had no nave aisles, and the nave itself was therefore very broad. The central aisle of the present nave shows the width of the original one, for, when the latter was pulled down and replaced by a Perpendicular structure, the piers were raised on the foundations of the old walls, and the width of the aisles then added was practically that of the western towers, which were originally outside the nave. The result of adding aisles to a nave already unusually wide, was to give it a breadth only surpassed in three Gothic cathedrals in England—York, Chichester and Winchester. A unique feature of the cathedral is the central tower, which is of two styles joined vertically. In the chapter-house there are some interesting alabaster figures, and among the many valuable works in the library will be found a York psalter (1418), with a Ripon Office of St. Wilfred, and

two Caxtons. Indeed, this cathedral, though small, contains features of more than ordinary interest to the antiquary.

Members and their friends will be driven from Ripon to

Fountains Abbey,

perhaps the finest monastic ruin in the world ; it lies in the valley of the Skell about three miles from Ripon, and is reached through the lovely park of Studley Royal. In its time this abbey, with the exception of St. Mary's, York, was the largest and richest monastery in Yorkshire.

The foundation of Fountains was the result of that tendency



FOUNTAINS ABBEY—SURPRISE VIEW.

for reform which in the twelfth century was found in the old Benedictine abbeys. We are indebted to Serlo, one of its earliest monks, for a history of the events which brought about its foundation.

Certain monks belonging to the Abbey of St. Mary, York, became discontented at the low level to which it had sunk some years after its foundation; they were "ashamed to settle down on the hither side of perfection," and under the protection of Archbishop Thurston a little band of thirteen withdrew to land given them by the Archbishop out of the Liberty of Ripon for the foundation of a new home. Under the shelter of the trees in the Valley of the Skell they made a hut for their lodging, and local tradition points to some ancient yews at the

west end of the abbey grounds as the first shelter of the monks. The hardships they endured for two years were great ; so much so that the brethren were about to seek refuge abroad when Hugh, Duke of York, joined their band, bringing with him money, books, and other portable property, and this was the turn of the tide.

Gifts of land, money, and privileges flowed in, and the erection of the abbey was undertaken under the supervision of one Geoffrey, a monk of Clairvaux, who had been sent by St. Bernard to initiate the monks into their new Order. This supervision accounts for the strictness with which the peculiar Cistercian lines were adhered to in the erection of the building and for the un-English features noticeable in the nave and transepts—portions of the original church. In 1140, on the death of Thurston, there was a disputed election in the York Chapter, one of the candidates being Henry Murdac, Abbot of Fountains Abbey. It lasted for several years, and in 1147 Fountains Abbey was attacked and burnt. Abbot Robert (1170-79) is believed to have rebuilt the monks' frater and to have constructed the southern portion of the cellarium. The work of reconstructing the presbytery was begun by John of York (1203-1211) and concluded by John of Kent, who also added the Chapel of the Nine Altars.

John of Kent, whose tombstone lies in the Chapter House, was the great master builder of Fountains Abbey, and one of the greatest makers of our Early English architecture. Beside his work in the Church he built the infirmary hall to the east of the monastic buildings, of which, in spite of the ruin which has been wrought, enough remains to indicate the greatness of the conception and the magnificence of the execution. During the fourteenth century the builders did little beyond the erection of the large kitchen adjoining the infirmary, and in the fifteenth century their work mainly consisted in such modifications as tended to render the building more comfortable and more magnificent.

The very fine tower at the end of the north transept was hardly completed when in 1539 the abbey was suppressed. The roofs of the building were at that time removed and were sold to Sir Richard Gresham. They have suffered a great deal from time to time, but are now the property of the Marquis of Ripon, K.G., to whom antiquaries owe a debt of gratitude for his careful preservation of them.

The visitor from Ripon will approach the ruins from the eastward. There are paths on both sides of the river, the one

on the north being more direct. The other affords the famous "**Surprise View.**"

Whichever path is followed the visitor should proceed to the western limit of the precinct, and commence his examination of the ruin from that point. The outer west gate stood near to the modern farmhouse, and to the south-west of Fountains Hall. This hall was built soon after the dissolution out of the ruins of the abbey. There was a second gate, ruins of which remain, about 200 yards eastward. A footbridge—thirteenth century—crosses the Skell on the south side of the outer court between the guest houses and the infirmary of the lay brothers, which was built on a platform, now much ruined, over the river. Close by is the mill (thirteenth century), still in working order, and the visitor should notice the ancient yew trees, which have doubtless witnessed every change in the valley from the foundation of the abbey. High on the south bank of the river stood the bakehouse and brewhouse, buildings of interesting arrangement. On the east side of the court are to be seen the west front of the church, with its porch and the long range of the cellarium. The nave of the church in its severity well reflects the austerity of the Cistercian rule at the time of the original foundation of the abbey. In the western part of the nave may be seen a double row of procession stones, and several of the piers further eastward give indications of the screens, which divided the aisles in the peculiar Cistercian manner. The evidences of the settlement of the tower in Perpendicular times are clearly seen on the east side of the south transept, and the clumsy attempt to buttress the south-east pier will be noticed. The old central tower itself has utterly perished, and its fall is perhaps the cause of the destruction of the arcade of the presbytery. The wall arcading and the springing of the aisle vaults, together with the Chapel of the Nine Altars, show the magnificent taste of the architects of the first half of the thirteenth century, and reveal how quickly the Cistercians departed from their original severity. The pavement, on what appears at first glance to be the site of the high altar, is held by Mr. W. H. St. John Hope to be a creation of the eighteenth century, manufactured out of old materials and wrongly placed. The original Norman presbytery extended eastward of the crossing to the distance only of two and a half bays of the later presbytery, where the foundations of the east walls remain. The building was square ended. The monks' stalls at the time of the dissolution extended one bay westward of the crossing, and under the seats are a number

of earthenware pots, built into the masonry, it is supposed, for acoustic properties. Proceeding into the cloister the visitor reaches the enclosure, in the alleys of which the daily lives of the monks were mostly spent. The last remains of the pentice which formerly surrounded the court were destroyed in the eighteenth century to make the cloister into a flower-garden. Immediately adjoining the south end of the transept is an arch communicating with what was probably originally the library, but was converted into a passage when a new library was built late in the thirteenth century. The next chamber is the chapter-house, the meeting-place of the monks for the transaction of their monastic business. The fifth arch southward on the same side was the parlour, where conversation was permissible. Elsewhere, of course, in the monastery silence was enjoined. The doorway in the south extremity of the east wall of the cloister gave admission to a passage, leading to the eastern block of buildings, and south of this passage and extending to the river is a large chamber, possibly used as a store-room. Over this eastern range was the dorture, reached by a staircase in the south-east corner of the cloister, and by another in the south transept, the latter being for the convenience of the monks attending the night offices in the choir. Close by is the calefactorium, or warming-house, a popular apartment in winter, for, except those in the kitchens, the two huge fires in this apartment—one fireplace was built up in Perpendicular times—were the only fires in the monastery. South-east of this apartment was a wood-house, and Mr. St. John Hope has found traces of wooden bridges across the river at the south end of the frater, which provided a ready means for the transport of fuel to this apartment and the kitchen. Above the warming-house is a room now used as a museum, and containing many relics discovered in the excavations made during the last half-century. On the south side of the cloister are the lavatories for the ceremonial washing of hands before meat and the weekly ceremony of the washing of feet. The door in the centre of this side gave admission to the frater, or refectory of the monks. At the south end on a platform stood a table for the abbot if he dined in frater, and tables were placed around the north and south walls for the monks, who sat on stone benches, still in part existing. The kitchen adjoins the frater, and communicated with it by a hatch, which was occupied by a large circular turn-table with shelves. The fireplaces were two in number, and stood back to back in the centre of the kitchen. The remarkable range of buildings on

the west side of the cloister, and running thence to the river, is now one apartment 300 ft. in length, but it formerly was divided into several chambers. The southern portion, built about 1200, is supposed to have been the frater of the lay brothers, and the thirteen bays to the north (built in late Norman times) were divided into store-rooms. Above this range of buildings were the dormitories of the lay brothers. The large block of buildings to the east were, as has been said, an addition of Abbot John of Kent (1220-1247). They consist mainly of a very large infirmary hall, a cellar with lodging over, a "misericord," a chapel (built in the thirteenth century), and a kitchen. The infirmary hall must have been originally a remarkably fine building, as vestiges show. The pillar standing has been reconstructed from fragments discovered during the present century. In Perpendicular times the aisles of this hall were cut off to form a number of separate chambers. The misericord was the chamber set apart for the eating of meat by those who, for reasons of age or infirmity, were permitted that relaxation of the rule. In the kitchen should be noticed the large fireplaces and the grating communicating with the river, for the carrying away of refuse.

Possibly tea will be served in the grounds, and the party will then be driven back to Ripon, where train will be taken to Newcastle.



JULY 22—JULY 24.

NEWCASTLE=UPON=TYNE.

Bout Lunnon then divvent ye mak sic a rout,
There's nowt there maw blinkers te dazzle,
For a' the fine things ye are gobbin about
We can marra iv canna Newcassel.

—*Old Song.*

Newcastle is best known as one of the chief centres of the coal trade, but the north countryman, in whom local patriotism is very strongly developed, is extremely proud of the history of his ancient city, and will seldom admit the superiority of any other place in any respect. It first appears at Pons Elia, the military station guarding the Roman bridge over the Tyne, a bridge whose site is now occupied by the Swing Bridge. Later the Saxons occupied the place, and from the great number of religious houses in and around the town named it "Monkchester." Their town, however, was sacked by the Danes, and remained a heap of ruins until William the Conqueror, grasping its great military value, caused a castle to be erected upon the site previously occupied by the Romans; and this castle, being replaced by a new and more powerful one by William Rufus, the town under it became known as Newcastle, "upon Tyne" being added to distinguish it from the other Newcastles. The town so rapidly increased in importance, largely through the great part it played in the defence of the northern border, that in the year 1400 it was created a county in itself, and in the reign of Henry VIII. Leland was able to write, "the strength and magnificence of the waulling of this town far passeth all the waulles of the cities of England and most of the townes of Europe." Portions of these walls are still standing.

Leaving Newcastle at 9 a.m., we soon reach Durham.

Durham.

For beauty of situation and for historical interest few places can vie with Durham, and the rocky promontory with the castle at its northern end, the great cathedral—the most beautiful Norman building in the world—at its southern end, and the River Wear encircling it on three sides, forms a very beautiful picture even from the railway.

Durham does not appear to have been inhabited until the year 995 A.D., when a party of monks fleeing as so often before from "the fury of the northmen," and seeking a hidden spot for the preservation of their treasure, brought to this place the body of St. Cuthbert, and erected a small church. This building was swept away in 1093 by Bishop William of St. Carilef, who planned the present cathedral, and whose work was carried on by Bishop Ralph Flambard (obit 1128), and finished in 1130. Since that time the cathedral has frequently been renovated and extended, fortunately without interfering with Bishop William's great design. Thus in 1242 the east



DURHAM CATHEDRAL FROM S.W.

end was replaced by the present, east transept the Chapel of the Nine Altars, commenced in that year, and completed in 1280; while about 1175 Bishop Hugh Pudsey added the beautiful lady chapel now known as the Galilee, which was further added to by Cardinal Langley, who between 1428 and 1435 erected the new roof, and inserted the west windows together with his own tomb.

St. Cuthbert's tomb still contains the bones of the saint, together with the skull of St. Oswald, King of Northumbria, who was killed in battle by the heathen Mercians some twelve hundred years ago. The library is chiefly housed in the monks' old dormitory (with an oak roof dating from the year 1404) and the refectory, and contains a number of MSS., among them two seventh century Gospels, a large number of pre-Norman

sepulchral crosses, and the relics found in St. Cuthbert's tomb when it was opened in 1827.

The first castle was erected by William the Conqueror towards the end of the eleventh century, but of this castle only the chapel remains, the erection of the present fortress having been commenced by Bishop Pudsey in 1154, and carried on by his successors.

Until the year 1837 the castle was one of the residences of the Bishops of Durham (princes within their own dominions, and appointing their own sheriffs, etc.), but in that year it was handed over to the newly-established University of Durham, and is now occupied by University College. During the assizes it serves as the judge's official residence, and at the time of writing it is doubtful whether it will be possible for members to visit it during their tour.

In the late afternoon we return to Newcastle and attend the evening service in the cathedral.

The Cathedral, Newcastle.—The cathedral church of St. Nicholas was, until 1882, the parish church, and was erected during the thirteenth century, an earlier church having been burned in 1216, and it has played its part in the interesting history of the city. As originally designed it had a square tower like that of Durham, and the present beautiful lantern was erected some 450 years ago through the generosity of Robert de Rhodes, who represented Newcastle in Parliament for many years. This wonderful tower is the pride of every true Tynesider, and is described by the architect Rickman as "the type of which there are several imitations. The best known are St. Giles' at Edinburgh, the church at Linlithgow, the college tower at Aberdeen, and its modern imitation by Sir C. Wren, at St. Dunstan's-in-the-East, London; but these all fall far short of the original." Many are the historic scenes that have taken place within the walls of the old church. Here Princess Margaret Tudor, daughter of Henry VII. attended "the church messe" on her way north to marry James IV. of Scotland; and again she visited it a few years later, returning to London after her gallant husband's death on Flodden Field. John Knox was preacher here for two years, and in this church defended himself before the council of the north, when charged with teaching that the Mass was idolatrous. James I. attended service here, on his way south to take the throne of England, and his son Charles I., a prisoner in the hands of the Scots, endured here the fanatical sermons of the champions of the Covenant. Here, too, the unlucky king

turned on his persecutors, and when one of them concluded a long diatribe aimed at the helpless prisoner by calling for the fifty-second psalm and giving out the first lines :

“ Why dost thou, tyrant, boast thyself,
Thy wicked works to praise ? ”

called instead for the fifty-sixth Psalm :

“ Have mercy, Lord, on me, I pray,
For men would me devour.”

The King's Psalm was sung.

When the Scots besieged the town in 1644 Sir John Marley defended it so long that the Scottish commander, growing impatient, and knowing well how greatly the tower was prized by the towns men, sent the barbarous message that unless the town surrendered without delay he would bombard the church. The Governor “countered” by replying that he had some Scottish prisoners, and that they were confined in the upper portion of the steeple, and the church was saved, only, however, to be almost gutted by the victorious Scots when the town at last fell. The towns people must have derived great pleasure a few years later when Cromwell returned from the victory of Dunbar and his prisoners were confined in the church for the night.

Thanks to the zeal of the Scottish reformers and to more recent “renovators” the church contains few ancient monuments. The font was saved from destruction in 1644 by Cuthbert Maxwell, a mason, who hid it, together with those of All Saints' and St. Andrew's Churches, but nearly everything else is modern, though much of it is worthy of its home. The only old monuments surviving are that of a Crusader, in the Bewick Porch, possibly Peter de Mareshal, who was buried here in 1322, and the sadly defaced monument of George Carr and his wife.

Among modern monuments we have that of Lord Collingwood, who commanded at Trafalgar after Nelson's death. The great Admiral is buried in St. Paul's, beside his still greater leader, but this monument commemorates the fact that he was a Newcastle man by birth. In the nave is a window erected in memory of the officers and men of the Northumberland Fusiliers, the local regiment, who fell during the Indian Mutiny, and in the south transept a tablet, erected by his fellow students and others, to the memory of David Oliphant, a member of the Diplomatic service, who was killed during the defence of the Legation at Peking in 1900.

MONDAY, JULY 24.

The Castle and Black Gate.

The castle is best approached by means of its principal gate, now known as the "Black Gate," probably after one Patrick Black, who owned it in the reign of James I. The lower portion of the gate house was erected in the reign of Henry III., the upper portion shows the square windows, etc., of the time of James I., and the roof is modern; recent demolition of some old houses has enabled the old work to be seen to much better advantage, and has uncovered the arch which formerly spanned the moat. The gate is now utilised as a museum, and contains a fine collection of Roman and other remains which have been found in the neighbourhood.

Of the castle itself nothing remains but the keep, a tall square tower with a wing built against its eastern tower, which is seen on the right, close to the railway, as the train enters the station. The keep is entered by a flight of steps open to the sky, at the top of which is the main doorway (modern), but an exact reproduction of the original Norman doorway. Through this we pass into the great hall.

The principal room in the basement is the guard room or dungeon, in the centre of which is a stone column from which spring the arches which carry the roof, while on the south side, close to the window, is a small door leading to the sallyport. The walls here are 17 ft. thick. In the Middle Ages it was used as a gaol, or in the words of a writer of the time of James I., "the place where is kept the sons of Belial," and the iron rings in the walls were probably fixed then. On a level with the dungeon, under the stairs of entrance, is the chapel, a small building with some beautiful work, now used for the keeping of some ancient stone coffins. The next floor, formerly the governor's quarters, later used by the corporation school, is now occupied by the library of the Society of Antiquaries, and contains also some old armour and paintings. Above this is the great hall, now reaching to the roof, but formerly divided into two floors with the well chamber opening from it, where is a well whose shaft passes down into the rock on which the castle stands.

It is probable that little, if any, of Rufus's Castle now stands, the keep having been rebuilt by Henry II. at a cost of £892 18s. 9d., a very large sum at a time when an ox could be bought for 3s. Edward III. had the fortress thoroughly repaired, but it was gradually allowed to decay, and even in Queen Elizabeth's time was described as "an old and ruinous castle." During the last siege of Newcastle by the Scots (1644) Sir John Marley patched it up once more, mounted some cannon, and made a final stand here when the town fell, but this was the last of its fights, and in 1802 the Corporation saved it from ruin by purchasing it for £600 and erecting the battlements and roof which now surmount it.

Newcastle to Tynemouth.

The River Tyne below Newcastle is no longer the silvery, salmon-haunted stream of a hundred years ago, but a voyage down one of the chief shipbuilding and manufacturing rivers of the world is both interesting and striking.

In the afternoon we embark at the quay on a steamer which has kindly been placed at our disposal by the Tyne Commissioners. An excellent view is obtained of Robert Stephenson's high level bridge, carrying both the North Eastern Railway and the road across the river at such a height that shipping can pass without inconvenience, and of the Swing Bridge. The latter structure occupies the site where for so many centuries ran the wood or stone bridges to which Newcastle owed its existence, and was opened in 1876. The two central openings are crossed by a bridge which can be swung to one side to permit the passage of ships, the openings—104 ft. each—being wide enough to allow even the largest battleships to pass to and from the Elswick Works, higher up the river. The length of the swing part is 240 ft., its weight 1,450 tons, and it will carry a load of 60 tons on four wheels.

Steaming down the river a succession of works—chiefly shipyards—appear on either bank, the most important being Armstrong's "Low Walker" yard on the left, closely followed by Messrs. Swan, Hunter, and Wigham-Richardson's great yards at Wallsend, with their enormous sheds, beneath one of which is the skeleton of the gigantic turbine steamer under construction for the Cunard Company. The town of **Wallsend** has blotted out the Roman station of **Segedunum**, and the shipyard stands where formerly the Great Wall ran down to the river, but a fragment of it can be seen close alongside the

berth of the Cunarder. Almost opposite, on the right bank, are the works of the Tharsis Company, the United Alkali Company (Hebburn), and of Palmer's Shipbuilding and Iron Company (Jarrow). Then on the right is **Jarrow Slake**, a species of natural harbour, used partly as timber ponds, but also providing accommodation for the floating hospitals for cholera, small-pox, etc., and after that the great shipping port of **Tyne Dock**.

At the mouth of the river lie the three towns of **South Shields**, **North Shields**, and **Tynemouth**, the latter two forming practically one place. Within the memory of living men the mouth of the Tyne was so shallow that it was possible to wade across at low water from one bank to the other, and the entrance was excessively dangerous in bad weather, but dredging and the construction of the two piers have altered that. These piers, which took some forty years to build, are of blocks of concrete, each block weighing about forty tons, the south pier being over a mile in length, and the north about twelve hundred yards. But even these great works proved too feeble to resist the winter north-easters, and before the north pier was actually finished, a great gale breached it, and it was decided that a great part of it must be rebuilt; this work is now in progress.

Of the **Castle** and famous **Priory** of **Tynemouth** little now remains. The first church was built by King Edwin, 626, and placed so close to the North Sea it is not surprising that during four centuries it was visited by the Danes or Norsemen every few years; the surprising thing is that after each raid the church was rebuilt. The church in the middle ages did double duty, the eastern portion being the Priory Church of St. Oswin, and the western the parish church of St. Mary; of the latter scarcely anything remains, and of the former little except some fragments of the walls, and a very beautiful lady chapel, of microscopic dimensions (sixteen feet by twelve feet).

Most of the castle disappeared in 1780, when the present Artillery Barracks were erected. During the last few years new batteries have been constructed for the defence of the Tyne, and much of the promontory is consequently closed to the public.

After luncheon the steamer takes us to

Palmer's Shipbuilding and Iron Co., Ltd., Jarrow-on-Tyne.—These works are situated at Jarrow, about seven miles from Newcastle, and were founded in 1851 by Sir Charles Mark Palmer, Bart., M.P. Covering an area of about 100 acres,

and having a river frontage of nearly three-quarters of a mile, they comprise a shipyard, graving dock and slipway, engine and boiler works, steel works and blast furnaces, and include within themselves the entire range of shipbuilding operations, from the smelting of the ore to the complete equipment of the vessel. It was at Jarrow that the iron screw steamer *John Bowes* was built in 1852, a vessel that did much to keep the London market for northern colliery owners, and which was the forerunner of a long list of cargo vessels of all sizes built by Palmer's. In 1854 the firm received an order for an armour-plated vessel named the *Terror*, which was built in three months, and was the first of sixty-eight warships built or building for the British Government, including troopships, gunboats, torpedo boat destroyers, cruisers and battleships, the latest battleship being H.M.S. *Lord Nelson*, of 16,500 tons displacement and 16,750 horse-power, now under construction. The firm is now building its 789th ship and 763rd engine. The shipyard possesses its own forge and rivet works, and large fitters', plumbers', joiners' and cabinetmakers' shops. The graving dock is 440 ft. long and 70 ft. wide. The engine works have turned out thirty-four sets of engines and boilers in one year, and includes foundries for the production of iron, brass, and steel castings, and plant for the manufacture of water-tube boilers. The sheerlegs lift 120 tons. All the departments are worked by electricity, and over the berth of the *Lord Nelson* is a transporting and lifting gear of a novel description also electrically worked. There are five blast furnaces, and in the steel works there are eight melting furnaces and cogging sectional sheet and plate mills. In busy times the number of men and boys employed is about 10,000.

After tea, to which this firm have invited us, we return by steamer to Newcastle and take train to Edinburgh.



SCOTLAND.

Mountain and mist, lone glen and murmuring stream,
The shaggy forest, and the grey hillside—
These are thy features, Scotland—these the pride
Of those that love thee, and thy minstrels' theme.
For partial nature that denied to thee
The sun of England and the soil of France
Hath clothed thee in the garment of romance,
That dearer for that dearth thy face might be.
Proud mother, whose least son with reverence turns
To greet thee—land of Wallace, Knox, and Burns—
Thy rugged hills are sacred from the feet
Of heroes; and thy bards (a countless throng)
With tuneful tribute make the charm complete—
Each moor a memory, and each stream a song.

—Robert Reid.

MONDAY, JULY 24, to TUESDAY, JULY 25.

EDINBURGH.

The members and their friends arrive at Edinburgh at 10 p.m., and on the following morning will proceed to view this famous city.

Edinburgh and its Romantic Story.

Edina, Scotia's darling seat—
All hail thy palaces and towers.

No city in the three kingdoms can rival Edinburgh at once in picturesque character and in historic memories. To-day it is a far-spreading residential city, stretching from the foot of the Braid Hills to the shores of the Firth. Its far-reaching suburbs, however, are entirely a growth of the last hundred years. Down to the end of the eighteenth century Edinburgh remained the high, narrow old town of the feudal ages, confined to the rocky ridge which runs eastward from the Castle to Holyrood. To that narrow, sloping ridge most of the city's romantic memories are confined, but every foot of the way has its tale to tell, and the more one knows of its past the more there seems to be to learn about it. To tell the story of

Edinburgh is to tell the story of its Castle and its Palace, its streets, its cathedral, and its houses, for every stone seems to have a history of its own in Edinburgh.

The simplest way to explore the city is to go along Princes Street, ascend by the Mound to the Castle, thence to stroll down the entire length of the old town to Holyrood and return by the Calton Hill, and along the entire length of Princes Street.

At the **Castle** the story of Edinburgh started, and to tell it completely would entail telling most of the history of feudal Scotland. On the Grey Crag here it was that Edwin, the great King of Northumbria, founded his burgh—according to some the origin of the name—before the year 633; and here the chapel still stands which was built by the saintly Margaret,



OLD TOWN, EDINBURGH, FROM THE CALTON HILL.

heiress of the line of Alfred the Great and spouse of the Scottish king Malcolm Canmore. Round each of these names for one who knows clings a whole volume of romance, for Edwin was the first English king to dream of a United Kingdom within these shores, and Margaret, fleeing before Harold and the Norman William, brought with her the feudal system and the Roman Church.

Edinburgh was a royal fortress, and saw capture and recapture during the wars of Wallace and Bruce, but it was not the actual capital of Scotland till the fifteenth century. Dunfermline came before it in that dignity, and it was only when the assassination of James I. showed Perth to be too dangerously

near the wild Highlands that the seat of government was removed south of the Forth. Even then Stirling for a long time competed closely for the royal place.

Edinburgh, however, had its title almost immediately sealed with blood. Within these walls the boy-king, James II., was entertaining the youthful Earl of Douglas, when, it is said, the black bull's head, sign of death, was set on the table, and the earl and his brother were dragged off to a mock trial and instant execution in the castle yard. So the ministers of that time sought to annihilate a house too closely rivalling the Crown. Over these dizzy ramparts, in his perilous infancy, James III. was lowered in a basket for safer keeping at Stirling. Here James IV. came to superintend the muster of his army on the Boroughmuir below, before the fatal march for Flodden. Edinburgh Castle was the last fortress in Scotland to hold out for Queen Mary. When at last it surrendered, the Governor, brave Kirkcaldy of Grange, was hanged, and Secretary Lethington, fearful of a worse fate, poisoned himself. At a later day it was holding out for the bigoted James VII. when the incident occurred which Scott has immortalised in his song of "Bonnie Dundee." After defying "the Lords of Convention," who were against his king, Dundee left their assembly, and, mounting his horse, in spite of the ringing of alarum bells and beating of drums to arms, rode out of town. Then, after clambering up the Castle Rock for a consultation with the Governor, he rode away to raise the king's forces and die in the hour of triumph at Killiecrankie.

The castle narrowly escaped destruction once more in the time of Cromwell, but the cannon had scarcely been got into position, and miners set to work at the rock, before the defenders surrendered.

The visitor, upon entering the castle, crosses the drawbridge over the old moat. He then passes through the new battle-mented gateway, representing the former outer port where—

Above the gloomy portal arch,
Timing his footsteps to a march,
The warder kept his guard.

The steep winding causeway leads first to the ancient Portcullis Gate underneath the Argyll Tower. This was the Gate Tower constructed by David II. The arched pend is fitted with provisions for the usual wood and iron gates, four in all. The walls vary from 10 to 17 ft. in thickness. Above the arch is a panel with the royal arms, in place of those defaced by

Cromwell. The chamber immediately above the arch is lighted by a barred window from the castle side, and is said to have been occupied by the Marquis of Argyll on the night previous to his execution. A visit to the Argyll Tower will be made in due course.

To the left of the tower is a stair that was once the only way to the citadel; the upper platform is now reached more easily by road. On the right, facing the north, is the Argyll battery. Farther on, at the bottom of a short road, stands the armoury; and near it, on the verge of the dizzy rock overhanging the west kirkyard, are the plain four-storey barracks erected during the French scare of 1796. There also is the old sallyport to which Claverhouse clambered on his fruitless errand to induce the Duke of Gordon to link his fortunes with him among the loyal clans in the north. The sallyport is situated directly opposite Castle Terrace, and is easily accessible from Princes Street Gardens. The historical visit by Claverhouse is commemorated by a tablet. It was by this postern gate also that the body of Queen Margaret was conveyed from the castle.

The citadel (highest plateau of rock) contains everything of interest in the castle. Mons Meg will be observed on the old bomb battery, now known as the king's bastion. This famous piece of ordnance was employed in the sieges of Dumbarton in 1489, and of Norham in 1497. It was also frequently used in the Civil War, and the curious note is made that two men died of their exertions in dragging it up from Blackfriars Yard to the castle. In Cromwell's list of captured guns in 1650 it is called "the great iron murderer Meg"; and this clumsy ordnance burst when fired in honour of the Duke of York's visit to the City in 1682. After this accident Meg was conveyed to the Tower of London, where it remained till 1829, when, through the intercession of Sir Walter Scott, it was returned to Scotland by George IV. The occasion was one of rejoicing. The huge cannon was drawn from Leith to the castle by a team of ten horses, preceded by two horses mounted by boys clad in tartan, and accompanied by a military escort. There is a difference of opinion as to whether Mons Meg was forged at Mons in 1476, or was the workmanship of a Galloway smith—"Brawny Kim" of Mollance or Mons. Sir Walter Scott favoured the latter view.

St. Margaret's Chapel, situated directly in the rear of Mons Meg, is the oldest building in Edinburgh, and also the smallest church in Great Britain. It is of Norman architecture, and was erected by St. Margaret, the pious and beautiful queen of

Malcolm Canmore. In this chapel Edward I. of England imposed the oath of fealty on the Abbot of Holyrood and other ecclesiastics. Restored in 1853 by Sir Daniel Wilson, and in 1892 by the late Mr. William Nelson, this ancient chapel is now used as a baptistry for garrison children whose parents are Episcopalians.

The **Argyll Tower**, reached by a doorway to the east of St. Margaret's Chapel, was dismantled in the siege of 1573, and restored in 1892 by the late Mr. William Nelson, publisher. From the roof, to which the visitor must not omit to go, the view is superb, and, upon glancing downwards, the National Galleries, midway in the gardens, appear like ancient Greek temples in a setting of green. Descending a short flight of steps, we reach

The donjon keep,
The loophole grate where captives weep.

There the two Argylls, father and son, were imprisoned prior to their trial and execution, and ever since their names have been linked with the ancient building. The marquis might have escaped in woman's dress, but his courage failed just as he was about to step into the sedan chair, and he abandoned the attempt. His son, however, escaped one snowy evening disguised as his daughter-in-law's lacquey. At the outer gate his arm was roughly seized by the sentinel, and in his agitation he would have betrayed himself; but the lady, with great presence of mind, slapped him over the face with the muddy train he had let fall, and rated him soundly for his carelessness. Amused at the incident, the sentry allowed them to depart, and the earl was not caught again for three years. Lord Balcarres also was confined in the vault. Tradition says that the apparition of Claverhouse, in his flowing wig and glittering breastplate, appeared to his lordship just about the precise hour at which the cavalier was killed at Killiecrankie. Here, too, Principal Carstairs was incarcerated; and in 1746 several Jacobite ladies spent many long months within its walls.

The **Half-Moon Battery**, at the east side of the citadel, was constructed in 1574, and completely changed the appearance of the Castle as viewed from the Esplanade. This, to a great extent, accounts for the perplexing contour of old prints of the fortress. The battery is mounted with fourteen 18- and 24-pounders, which are fired on occasions of national rejoicing. The gun to the left of the clock is discharged by electricity each day (Sunday excepted) simultaneously with the fall of the ball at the summit of Nelson Monument on Calton Hill.

Palace Yard (entered by opening on the right of the Half-Moon Battery), contains the Crown Room, Queen Mary's Room, and the Banqueting, or old Parliament, Hall. The old Palace was built at various periods prior to 1616, and it is thought the flagstaff tower was built five or six hundred years ago.

The Crown Room contains the Scottish Regalia—the crown, sceptre, sword of state, and Lord Treasurer's rod of office. The crown is said to have been worn by Bruce, but additions were made at a later period. The sword of state was presented to King James IV. by Pope Julius II. in 1507, and the sceptre was made for James V. in Paris. In the oval jewel of the Garter there is a portrait of Prince Charles Edward's wife. The Regalia have had an interesting history. In Cromwell's time they were sent to the Castle of Dunottar; subsequently they were secretly buried underneath the floor of the kirk of Kinneff in the Mearns. After the ratification of the Treaty of Union with England in 1707, the Government thought it prudent to hide them once more, and for 110 years they were lost to sight. At length Sir Walter Scott moved the authorities to search for them. In his presence the lid of the ancient oak chest in the Crown Room was prised open, and there, covered with linen cloths, were the relics which the Scots had begun to suspect had been destroyed. The discovery was hailed with loud shouts by a vast multitude on the Castle Hill. By the Treaty of Union the "Honours of Scotland," as the Regalia was called, must never more be used, but be kept constantly in Edinburgh Castle.

Queen Mary's Room (on the ground floor at the north-east corner of the quadrangle) was part of the palace built for the Scottish Queen in 1565. Part of the original ceiling has been preserved in the little bedroom where James VI. was born in 1566. Outside the windows of the large adjoining room there were formerly balconies, from whence Mary could enjoy the magnificent view. In the eighteenth century many of the Jacobite nobility and gentry were confined in the floors above the royal bedroom. In a Jacobite family of Perthshire there is a tradition to the effect that a young relative confined in this State prison attracted the attention of some ladies on the Castle Hill, and through their instrumentality effected his escape at night.

Old Parliament Hall occupies the south side of the Palace Yard. It is 84 ft. by 33 ft., and with its open timber roof is 45 ft. high. It was used chiefly as a banqueting-room, and for meetings of Parliament. Here Charles I. in 1633, and Oliver

Cromwell in 1648, were entertained with great magnificence. But the most memorable banquet was when William, sixth Earl of Douglas, and his brother, were enticed into the Castle by Chancellor Crichton, who feared their wealth and power. Towards the close of the entertainment, a black bull's head—the ancient Scottish symbol that some one was doomed to death—was placed on the table. The brave youths drew their swords, but were speedily overpowered, taken outside and beheaded. From the windows of this hall James IV. used to witness the famous tournaments that took place below the Castle Rock near the King's Stables. On one occasion was a mortal combat between a Scottish and a Dutch knight. After a full hour's fighting the Dutchman was struck to the ground, whereupon the King threw his plumed bonnet over the wall to end the combat, and the Scottish knight was declared victor. This interesting hall was for about two hundred years lost sight of, having been subdivided for hospital purposes. During its restoration it was ascertained that its construction dated from the time of James IV. The decorations of the roof timbers bear emblazonments of the arms of the principal governors and constables of the Castle from 1007 to 1805, and the windows of stained glass bear the arms of the Scottish kings and queens, and of leading personages in Scottish history to Scottish Reformation times.

Dungeons.—There are numerous dungeons in the Castle; several dug out of solid rock beneath the royal apartments are in total darkness, and one has an iron staple to which prisoners were attached. A staircase leads down to a lower dungeon 45 by 15 ft. Below Old Parliament Hall is a double tier of dungeons with small iron-barred loopholes. These dreary vaults, the walls and windows of which are visible from the roadway skirting the rock, were invariably used as a receptacle for French prisoners from the middle of the eighteenth century till the early part of the nineteenth. Some forty prisoners were confined in each vault. Many of the Frenchmen made a dash for liberty, and one night forty-nine of them escaped by cutting a hole at the foot of the parapet and lowering themselves to the ground with a rope. One fell over the precipice and was killed, the others were recaptured.

From the Castle Yard the steep street descends between buildings of note. On the right the house of the first Duke of Gordon keeps in its gable the last shot fired from the castle in 1745.

Ramsay Lane on the left gives access to the student-residence of University Hall, built by Professor Geddes round

the old house of Allan Ramsay, the poet. At the corner of Johnstone Terrace stands the assembly hall of the Church of Scotland, with, "over the way," the hall and college of the United Free Church. These burst into busy life and something of ancient pageantry during the great meetings in May.

At the foot of Castle Hill one may descend through the West Bow on the right to the **Grassmarket**. There heretics were burned, and malefactors and Covenanters hanged, on a spot now marked in the street paving by a cross. There Captain Porteus was lynched by the Porteus mob, and in a den not far off Burke and Hare carried on their horrible trade of murder. In **Greyfriars Churchyard** at hand stand many memorials of the Covenanters.

But, to return, at the foot of Castle Hill the street becomes the **Lawnmarket**, and the narrow closes and courts opening out of it have each memories of famous personages who once lived there. Lady Stair's house, in the close bearing her name, has been restored by Lord Rosebery. In Baxter's Close Burns lodged on his first visit to Edinburgh. At the head of the Bank Close the Lord President of the Court of Session was turning into his house after Sunday morning service when John Chiesly of Dalry shot him dead. And in James' Court Hume wrote part of his History of England, and Boswell entertained Dr. Johnson on his way to the Western Highlands. At that time the *élite* of Scotland were content to occupy flats in these high tenements, and on the narrow stairs the dowager who occupied the first floor held her skirt aside to let pass the charwoman who lived under the slates.

St. Giles' Cathedral.

But memories of great events cluster most thickly round the old cathedral of St. Giles. Despoiled of the antique glories of its exterior by the "stodgy" Georgian "restoration" of 1829, which spared only the beauty of the pinnacled spire, it depends now on the splendours of its interior and the associations of the past. There, however, remain enough to hallow any shrine. These walls have heard the preaching of Knox and the shout of Irnay Geddes—"Out priest! Dost say mass at my lug?" They have seen the splendid ceremonial at the burial, sixteen years after his execution, of the remains of the great Montrose, and in more recent years they have resounded to the wild music of the pipes, as the body of Professor Blackie was borne along the aisles.

St. Giles was the first parochial church in Edinburgh, and its history dates from the early part of the twelfth century. The saint to whom it was consecrated was born in Athens. Subsequently he retired to France, living in the neighbourhood of Nîmes with a hind, the only companion of his solitude. To this day a hind figures as one of the supporters in the arms of the city of Edinburgh. St. Giles died in 541, and his fame having spread to Scotland about the end of the seventh century, a small wooden structure was founded to his memory near the site of the present church.

The ancient Norman edifice founded by Alexander I. about 1120 has never been entirely demolished. In conjunction with the city it was burned by Richard II. in 1385, but a part of the choir and nave and the base of the spire escaped destruction. Until a few years ago marks of fire were distinctly visible on some of the pillars in the choir. The canons of St. Giles lived on the north side of the church in a row of houses, afterwards forming part of the Luckenbooths; the provosts lived on the south side. The most distinguished of the provosts was Gavin Douglas, afterwards Bishop of Dunkeld—well known as the translator of Virgil's "*Æneid*" into the Scottish dialect.

A great event in the church's history took place in 1454, when the arm-bone of St. Giles' was brought from France and handed over to the clergy by William Preston of Gorton. By way of gratitude, the magistrates built an aisle to Preston's memory. The arm-bone, as well as the image of St. Giles, figured largely in the public procession at the annual festival—a highly honoured institution until 1558. That year the image had been stolen from its place in the church, ignominiously ducked in the North Loch, and afterwards burned; so that, when the clergy marched in procession for the last time, an image—named in derision "*Young St. Giles*"—had to be borrowed from Greyfriars. The Queen Regent attended this last memorable festival; but upon her departure, the mob, to the delight of Knox, hustled the clergy and tore the image to shreds. Four years afterwards, the saint's jewels and vestments, and the massive silver reliquary made for the arm-bone, were sold by authority of the magistrates, and the proceeds were devoted to the repair of the church. The arm-bone, it is said, was tossed into the burying-ground, and never heard of again.

John Knox was, at the Reformation, appointed minister of the parish, and from a spot near the site of the present pulpit preached twice on Sundays and three times every other day of

the week. The great reformer literally died in harness, for his last sermon was on November 9, 1572, after which, attended by the entire congregation, he feebly tottered home, took to bed, and died within a fortnight.

After the Episcopacy had been established in Scotland under Charles I., Edinburgh was erected into a bishopric, and the Church of St. Giles appointed the cathedral of the diocese. Then Charles indiscreetly ordered the English service-book to be used in every parish, and thus led to the amusing incident of Sunday, July 23, 1639, in which Jenny Geddes was the principal figure. The scene took place in the middle of the church. Jenny, like most of the other worshippers, had brought her folding stool, and just as Dean Hannay was about to read the collect for the day, she emphasised her angry remonstrance by throwing it at the astonished cleric's head. Both the Dean and his assailant have had commemorative tablets raised to their memory; while the stool which started the battle between Episcopacy and Presbyterianism has found a resting-place in the Antiquarian Museum besides Knox's old pulpit, from which the battle between Prelacy and Presbyterianism was waged.

Apart from its ecclesiastical history St. Giles has passed through some stirring scenes. In 1571 Kirkcaldy planted his artillery in the steeple to overawe the citizens, and when some of the craftsmen threatened to demolish the massive pillars and annihilate his gallant band, he loopholed the ceiling and speedily caused them to relinquish their project. In the subsequent siege of the castle the church suffered considerably through being subjected to a cross fire from the cannon of the opposing forces. After the Reformation St. Giles was divided into four places of worship, and the stone-work was pitilessly hacked by way of adapting it to the requirements of the various congregations. The spire or lantern, which is universally admired, dates from 1648; prior to that time there used to be a loom set up in the tower so that imprisoned weavers might earn their board and lodgings. Sir John Gordon of Haddo was, previous to his trial and execution in 1644, confined in an apartment to the north-west portion of the church; and in Haddo's Hole, as it was afterwards termed, the Covenanters captured at Rullion Green were imprisoned. So lately as 1817 part of the church was used as a police office.

The interior of St. Giles was restored to something like its pre-Reformation state by the late Dr. William Chambers, Lord Provost of Edinburgh, at a cost of about £30,000. His idea was to convert it into a Scottish Westminster Abbey, where monu-

ments might be raised to distinguished Scotsmen of past and future generations. Several such monuments have been raised, chief among them being recumbent figures of the Marquis of Montrose and the Marquis of Argyll, which are to be found in the aisles respectively bearing the names of these noblemen. St. Eloi's Chapel is on the right of the High Street entrance. At its altar the craftsmen who had aided in the recovery of the Holy Sepulchre dedicated the famous Blue Blanket, or Banner of the Holy Ghost. The Albany Aisle is at the north-west corner. It is said to have been built by Robert, Duke of Albany, second son of Robert II., as an expiation for the murder of his nephew David, Duke of Rothesay. The baptismal font near the west door is on the model of Thorwaldsen's famous work at Copenhagen. On the south the Moray Aisle will be found directly opposite St. Eloi's Chapel. The remains of the Regent are understood to be buried here; and his assassination, as well as the impressive scene at his interment, are depicted on the stained-glass window. Before there was a public Exchange in Edinburgh people were in the habit of transacting business in the Good Regent's aisle. Chepman's Aisle, just past the south transept, was founded in honour of James IV. and Queen Margaret; it contains the remains of the Scottish Caxton, whose name it bears, and also of Montrose. The Preston Aisle is situated a little farther on, at the Royal Pew. On account of the beauty of the groining, which excels anything of the kind in the world, this aisle was regarded by Dr. Chambers as the "Gem of St. Giles." The King's Pillar, at the north-east corner of the choir, appears to have been erected in 1460 in honour of the infant James III. The pulpit is of Caen stone, and was carved by Mr. John Rhind, Edinburgh.

Outside the cathedral walls as well are many spots of supreme interest. At the north-west corner the figure of a heart in the paving marks the site of the old Tolbooth or "Heart of Midlothian." A few yards away the initials "J. K.," also in the paving, mark the original spot where John Knox was buried in St. Giles' Kirkyard; and east of the church, the old City Cross, restored by Gladstone, has seen the execution of Montrose in 1650, and the proclamation of the old Pretender as James III. and VIII. in 1745. In front of it, according to the law of Scotland, dyvours, or bankrupts, were forced to appear in diverse-coloured stockings. Royal proclamations take place at this Cross. At the back of the square, too, in which St. Giles' stands, rises the old Parliament House, now the seat of the Supreme Courts of Scotland. The earliest Parliament

House in Edinburgh remains in the Castle. Parliament afterwards sat in the Tolbooth till 1639, then it occupied the Great Hall of the present building, till the Union in 1707 made "an end of an auld sang."

The **Advocate's Library** at hand contains over 300,000 volumes, and among its priceless manuscripts are preserved copies of the Covenant signed by Mary and James VI., and the original M.S. of *Waverley*.

At the **Tron Church** the High Street is crossed by the thoroughfares of the north and south bridges. The north bridge crosses the hollow once filled with the waters of the Nor' Loch, but now occupied by railway lines and offices. The south bridge spans the narrow abyss of the **Cowgate**. In the days of James III. this was an aristocratic suburb; to-day a glance over the bridge parapet into the unsavoury depths is probably the utmost acquaintance with the region which the visitor will care to make. It is worth while to go a few hundred yards beyond the south bridge, for there, on the right, rises the black front of Edinburgh University, and at its south-east corner the street now passes over the site of the notorious **Kirk o' Field**, blown into the air with the body of the murdered Darnley.

Farther down High Street, at No. 99, a sculptured head with the legend, "Heave awa chaps, I'm no deid yet!" marks the site of a house which collapsed in 1861. Thirty-five persons were killed, but three days later the rescuers, digging among the ruins, were encouraged to persevere by these words from the depths.

Near the foot of High Street, **John Knox's House**, with quaint dormers and devout inscriptions, stands forth upon the Causeway. It was occupied by the reformer from 1559 till 1572. It now belongs to the Free Church, and contains relics of Knox and the Reformation.

Immediately below it the **Canongate** begins. This was the Court quarter in the times of Mary and James VI.; it saw revivals of its splendours during the residence of the Duke of York, afterwards James II. and VII., at Holyrood in 1679, and during the visitation of Prince Charles Edward in 1745; and it was still the town residence of some great families in the early years of the nineteenth century. But its sole glory consists now in its memories. In **Boyd's Court**, at the head of Canongate, a memorial plate marks the site of the **White Horse Inn**. There George III. lodged incognito with his preceptor, the Earl of Bute, in 1758, and the spot used to be shown where Dr. Johnson's armchair stood when he visited it in 1773.

Its large room was famous for the number of runaway couples from England who were married in it. **Moray House**, further down the street on the right, remained the property of the Earls of Moray till the middle of the nineteenth century. From the window balcony, it is said, Lord Lorne and his bride, Lady Mary Stuart, flouted the fallen enemy of their house, Montrose, as he was conveyed up the street on the hangman's cart to sentence and execution. A few months later Cromwell had his quarters in the house. On the left again **Canongate Tolbooth**, with its quaint architecture and curious old hall, dates from 1591, when this was a separate burgh. Among famous dust in the churchyard at hand lies that of Adam Smith and Dugald Stewart. Here Burns set up a tombstone over the grave of the poet to whom he owed his chief inspiration, Robert Fergusson. And here lie the bones of Duncan Ban MacIntyre, greatest of Gaelic bards since Ossian. Queensberry House keeps memories of Lady Hyde and the poet Gay; and the older White Horse Inn, recently restored, in the White Horse Close, dates from 1603, and is described in *Waverley* as a rendezvous of the Jacobites in the last Rebellion.

A line across the street paving here marks the bound of the old **Sanctuary of Holyrood**, within which debtors were safe from arrest. The privilege only fell into disuse in 1880. Within the Sanctuary the Abbey Tavern keeps a waistcoat of Lord Darnley, and in a curious little building, known as Queen Mary's Bath, that hapless sovereign is said to have indulged in baths of white wine.

Holyrood.

Holyrood Abbey itself, however, shares with the Castle the chief interest of Edinburgh. Of the actual religious house, founded by David I., nothing now remains except the ruins of the Chapel Royal. But within these broken walls James IV. received the Sword of State, now among the Scottish Regalia, from the legate of Julius II., Queen Mary entered upon the fatal marriage with Darnley, and Charles I. received the Scottish Crown. The bones, too, of many noble and royal personages, including James II. and James V., lie in the vaults below. The palace of Holyrood, on the other hand, was begun as a royal residence by James V., and thrice it played a conspicuous part in the story of that gay "gudeman's" descendants. In the oldest part, the wing next the Chapel Royal, the tragedy of Queen Mary's life took place. There, on

the first floor, are to be seen the rooms of the dissolute and faithless Darnley. Immediately overhead were the Queen's own apartments. Her bed and some of her other furniture remain in them, but their interest centres in the little turret chamber. There she sat listening to the lute-playing of her Italian secretary, Rizzio, when the arras opened, and from the private stair Darnley and his friends burst in, and stabbed the musician at her feet. The palace was completed for the residence of James, brother of Charles II., when he found it expedient to await here the fate of the Exclusion Bill. James' duchess, Mary of Modena, is said to have done much to win the goodwill of the ladies of Edinburgh by treating them to that rare beverage, tea, and to the balls and other entertainments then lavished on the Scottish nobility has been attributed not a little of that attachment to the royal house which showed itself in the later Jacobite Rebellions. In 1687, at the instance of James, the nave of the Abbey Church was converted into a Chapel Royal, with marble floor, throne, stalls, and splendid organ. But when the populace heard that High Mass was celebrated there they raided, burned, and destroyed the fane, and left it the ruin it stands to-day. Last of all, in the autumn of 1745, Prince Charles Edward took up residence at Holyrood, and for a brief period revived the ancient glories of the place. He had scattered Cope's army at Prestonpans, his fortunes were at their zenith, and he was the idol of the bravest and fairest in Scotland. Alas! in a few months the dream was over. Charles was a hunted fugitive, and of all who had supported him the happiest were those under the heather at Culloden. Still, however, once a year Holyrood sees a reflection of its ancient glory, when the Lord High Commissioner comes into residence, and for a few days something of Royal state is held.

Considerable interest belongs to the heights of the Royal park behind Holyrood. The ribbon of road running high along the foot of the Salisbury Crag was made by the unemployed during the years of want which followed Waterloo, when the Radical Riots became serious. It was a favourite walk of Sir Walter Scott, who seems to have gathered there the inspiration for at least one of his romances, *The Heart of Midlothian*. On the climb to it stand the fragments of St. Anthony's Chapel and St. Anthony's Well, scene of a pathetic old ballad of ruined and forsaken love, which may have furnished the idea for the story of Effie Deans. Mushat's Cairn, which figures in the romance, stood at hand, east of St. Margaret's Loch. And from the Radical Road itself Scott

looked down on the bonnet-lairdship of Dumbiedykes, with its quaint house and pendicles, and on David Deans' cottage and the village of St. Leonard's, which form the scene of the tale.

Behind the Salisbury Crags again rises the crest of **Arthur's Seat**. There is more sometimes in a name than Juliet dreamed of. With Ben Arthur in Argyll and some scores of other places, Arthur's Seat, there is reason to believe, derives its name from the actual Arthur of British history, who, according to the early historian Nennius, interpreted by Skene, fought his great battles mostly in the lowlands of Scotland. The view from the top of Arthur's Seat—of Edinburgh itself, of the fertile Lothians, and of Fifeshire with its fringe of fishing towns, beyond the silvery Firth of Forth—is well worth the trouble of the climb. A pleasant five-mile excursion, too, may be made round the King's Park, as the whole area is called. It passes, just beyond Holyrood, St. Margaret's Well, supposed to have been the Rood Well, near which vanished the infuriated white hart from which David I. was miraculously preserved. Further on, below the little St. Margaret's Loch, the immense volunteer reviews of 1860 and 1880 took place before Queen Victoria, amid storms of rain which cost hundreds of lives. Round the shores of Dunsappie Loch Prince Charles Edward's little army lay on its arms on the night before Prestonpans. And away below, gleaming among its trees, lies Duddingston Loch, with the sequestered village and kirk of the name, at whose gate may still be seen the "lych" or coffin rest, the louping-on stone, and the joughs, or pillory-collar, of bygone days.

From Holyrood it is no long way, by the Abbey Hill and Regent Road, to the Calton Hill at the east end of the New Town. Most of the buildings about the Calton belong to the period about 1825, when Edinburgh, having attained, through lettered eminence, the honourable name of "the modern Athens," seems to have sought to perpetuate that title in stone and lime. Thus Edinburgh High School here, by the Regent Road, is in Grecian style, appropriately enough. But the Burns monument opposite is also Grecian, though the Ayrshire poet laid no claim to classic manner. And higher on the hill the unfinished National Monument, in memory of the heroes who fell at Waterloo, is an imitation of the Athenian Parthenon. There are classical monuments also to Dugald Stewart and Professor Playfair. The sole exceptions to the Grecian rule are the somewhat dumpy Observatory, and the lighthouse-like memorial to Lord Nelson, on which the time-ball falls every day at one o'clock.

It was, according to tradition, by a reckless launching of his horse down the precipitous north side of the hill before the eyes of Queen Mary that the notorious Earl of Bothwell first attracted to himself the attention of that Queen.

From the Calton Hill westward stretches the mile-long line of Princes Street, perhaps the handsomest street in Europe. From its sunny pavement and its sauntering crowd the loiterer of to-day has but to lift his eyes, and across the valley the mass of Old Edinburgh, from the roofs and battlements of the castle, past the pinnacles of St. Giles', and almost to the turrets of Holyrood, repeats eloquently to him all the long drama of Scotland's past. It is little wonder that Edinburgh guards jealously against any encroachment on the amenities of Princes Street.

At the eastern end, opposite the post office, stands the Register House, the Somerset House of Scotland, where the documents of the kingdom are preserved. The new Register House at Wand occupies the site of the tavern made famous by the "*Noctes Ambroseanæ*" of Christopher North. In the corner gable of the high tenement of James Square behind, the window, now walled up, may be seen of the room in which Burns lodged on one of his visits to the city. And on the other side of the Register House, at the corner of St. Andrew's Street and Queen Street, the National Portrait Gallery keeps portraits and relics of many famous persons. Among the antiquities preserved there may be seen the pulpit of John Knox, the veritable stool which Jenny Geddes hurled at the Dean of Edinburgh's head, and the "*Maiden*," a primitive guillotine introduced into Scotland by the Regent Morton, and afterwards used for his own execution.

But the chief feature of Princes Street is the bosky sweep of gardens which slopes away on the southern side to the valley in which once surged the waters of the Nor' Loch. These gardens, with the monuments and memorials which they contain, form a fitting separation between the past and the present—the Old Town and the New. There are to be seen the statues of Allan Ramsay, the poet, and of "*Christopher North*," of Sir James Simpson, who invented chloroform, and of David Livingstone, the explorer of Africa. But the greatest and most beautiful memorial is the famous monument to Sir Walter Scott. This "*most elegant Gothic monument of modern times*" was designed by George Meikle Kemp, son of a shepherd of the Pentlands. It was his first and last great work, for while it was being built he was accidentally drowned

in the Union Canal. It contains a Scott museum, and from the top a splendid panorama of the Forth is to be seen.

Further west the Mound was constructed across the valley of the Nor' Loch, as a means of communication between the New Town and the Old, with hundreds of thousands of cart-oads of soil dug from the foundations of houses. The Royal Institution and the National Gallery, which stand upon it, form two of the finest modern specimens of early Greek architecture.

In Castle Street opposite, No. 39 was the town house of Sir Walter Scott from 1800 till 1826. Among the many visitors who paid their respects to him there was the poet Crabbe.

The sights of the west end of Edinburgh are the **Dean Village**, **Donaldson's Hospital**, and **St. Mary's Cathedral**. The last-named, in Palmerston Place, was founded in 1874 by the Misses Walker of Coates, who bequeathed a large fortune for the purpose. It is said to be the finest creation of Sir Gilbert Scott, and must be held to rival the great cathedrals of the Roman Church. Its pulpit, screen, and reredos are works of high art, and its carved episcopal chair was the gift of Canon Liddon. Donaldson's Hospital, further west, forms a magnificent example of Tudor architecture, the finest building of its kind in Scotland. Three hundred poor children are maintained and educated within the walls by the munificence of the founder, a printer, who left £200,000 for the purpose. From the Dean Bridge again, one of Telford's creations, on the Queensferry Road, not only may one enjoy an ample view of the valley and Firth of the Forth, but, looking over the parapet, one may contemplate on a veritable picture of the past. There, in the heart of the fashionable west end, still exists by the banks of the Water of Leith, a hundred feet below, a rustic village, with its mill and other details of life, as primitive as any described by Allan Ramsay two hundred years ago. The picture has a charm that has drawn many a wistful fancy thither from the hurry and struggle of modern life.

The afternoon will be spent in making an excursion to **Forth Bridge** and **Dalmeny Park**, the picturesque estate of Lord Rosebery.

Leith, scarcely two miles distant from the Register House, will be reached by train; it has municipal organisations of its own, but there appears some likelihood of amalgamation taking place

with Edinburgh. Apart from its magnificent harbour works, which cost one-and-three-quarter million sterling, it has little to attract a visitor, except that it is the starting point for enjoyable excursions on the Forth. The Forth Bridge is best seen from the water, therefore we take the steamer to South Queensferry.

The **Forth Bridge** was constructed by Sir William Arrol from designs by Sir John Fowler and Benjamin Baker, and is one of the great triumphs of modern engineering. The total length of the bridge is one-and-a-fifth of a mile, and it is the highest bridge in the world, being 450 ft. from base to highest point. The cantilever (or double bracket) principle has been adopted; each cantilever consists of two brackets, the lower (in ordinary position) supporting the railway by compression, and the upper (inverted) by tension, the two being firmly interlaced and practically indestructible. The masonry piers upon which the cantilevers rest are founded at from fifty to ninety feet under water level, and vary in diameter from seventy feet at the bottom to sixty feet at the top. The main piers of the cantilevers are of steel tubes, twelve feet in diameter, carried up to a height of 370 feet, whilst the rails are 160 feet above high water level.

Altogether fifty thousand tons of steel have been used in this gigantic structure, including thirty-two miles of bent plates for the tubes, the whole being welded together by eight million rivets. As the bridge has a metal surface of twenty-five acres, it took 250 tons of paint and 35,000 gallons of oil to paint the work. An allowance of one inch per hundred feet has been made for contraction and expansion and for changes of temperature. The bridge can stand a wind pressure of 56 lb. per square foot, or between seven and eight thousand tons of lateral pressure on the cantilevers. Seven years—1883-90—were occupied in its construction, involving, with £800,000 for connecting lines, a sum of £3,500,000. The expense was borne by four companies—the Great Northern, North Eastern, Midland and North British, the latter alone working the line.

Through the construction of this bridge, the east coast routes to Aberdeen, Inverness and the north generally, have been shortened by over twenty miles. Direct communication has also been established between Edinburgh and Dunfermline; while Perth has also been brought within little more than an hour's journey of Edinburgh.

After viewing the Forth Bridge we coach from Queensferry through Dalmeny Park.

At **Queensferry** is the Hawes Inn, over which Sir Walter Scott, in "The Antiquary," and R. Louis Stevenson, in "Kid-

napped," have cast the glamour of romance. From the time of the Roman occupation of Britain till the opening of the Forth Bridge, there was here a passenger ferry to Fifeshire, and the town is named after Queen Margaret, who frequently went that way upon visiting the palace of Malcolm Canmore at Dunfermline. The whole district is strongly reminiscent of this saintly queen. It was at Port Edgar, half a mile west of Queensferry, that she and her sister Christian landed, together with their brother Prince Edgar Atheling, after the Norman Conquest; and it may be noted also that the splendid anchorage opposite the sleepy little town is known as St. Margaret's Hope. Adjoining the ancient Town Hall of Queensferry a public hall and recreation rooms have been erected by the Earl of Rosebery in memory of his wife. Farther west are the remains of a monastery of the Carmelite Friars, dating from the fourteenth century; part of it, recently renovated, is used as an Episcopal Church.

At the village of **Dalmeny**, about three-quarters of a mile from Queensferry, there is a beautiful old Norman church, dating from the twelfth century—well worth a visit. Dr. John Hill Burton, who was buried in the adjoining churchyard, says this is the most truly venerable and interesting specimen of ecclesiastical architecture of which Scotland can boast. Dundas Castle, a mile to the south of Dalmeny Church, is said to be the oldest inhabited house in Scotland.

Dalmeny Park comprehends the ancient baronies of Barnbogle, Leuchold, and other lands. The old picturesque **Castle of Barnbogle**, partially restored by the present earl, stands on a point jutting out into the Forth. For thirteen generations Barnbogle belonged to the family of Mowbray of Cockairney, Fife, the last of whom, in 1615, sold it to Thomas, Lord Binning, afterwards Earl of Haddington, from whose grandson it was bought in 1662 by an ancestor of the Roseberys. Dalmeny House was built between 1815 and 1819, and was visited twice by Queen Victoria—in 1842 and in 1877—and frequently by Mr. Gladstone. It contains some fine paintings, including the celebrated portrait of Napoleon by David; a much admired Murillo; and landscapes by Patrick Nasmyth. There are also busts of eminent men of the past and present generation. Barnbogle is stored with a rich collection of art treasures.

Cramond Village, at the mouth of the Almond, was a maritime station of the Romans, of whose occupation numerous remains have been found in the neighbourhood.

Cramond Brig is associated with an adventure of James V. Travelling as "The Guidman o' Ballengeich," the king was attacked by five gipsies, and would have fared very badly, had not a peasant named Jock Howieson come to his assistance and used a flail with such energy that he and his royal master put the gipsies to flight. The monarch afterwards presented the courageous peasant with the Braehead lands on which he worked, the curious condition being attached to the gift that Jock should attend with a basin of water and a towel whenever royalty passed that way. Queen Victoria passed Cramond Brig in 1842, and Howieson's descendant faithfully discharged this loyal function.

In the evening at 8.30 p.m. a reception will be held at the Council Chambers by the Lord Provost of Edinburgh.



WEDNESDAY, JULY 26.

***Tour through the Rob Roy Country from
Edinburgh to Glasgow.***

We leave Edinburgh behind us at Princes Street Station, whence we travel to Callander *en route* for the Trossachs through a country full of interest—a country that has been called Scotland's battlefield; the appellation is easily explained, for the narrowing strath between the Forth and the Kilsyth Hills was the only gateway to the north, and so, naturally, in all ages formed the most feasible ground for disputing an enemy's advance. Just after passing the **River Carron**—whose banks were the scene of Fingal's defeat of the Roman Caracalla, remembered in the dirge of Ossian—**Larbert** comes picturesquely into sight on the left. It is the burial-place of James Bruce, the famous African explorer, whose residence, Kinnaird House, stands in the neighbourhood. From this point, looking away to the right, the purple hills and the fertile valley of the Forth make a splendid scene. The heath, however, narrows rapidly now, and its interest grows more vivid, for among the low hills on the left lies **Bannockburn**; on the slope of one of these hills, where the Borestone, which held his flag, still rests, Bruce himself stood, as he directed the battle, and over the brow of the rising ground behind, at the climax of the struggle, came the motley array of gillies and trencher lads, with blankets waving and tent-poles in air, whose appearance turned the wavering English into a head-long flight.

St. Ninians was the headquarters of the Jacobite army in 1746 after their victory at Falkirk, and on February 1, learning of the approach of the Duke of Cumberland, they blew up their powder magazine, which was the village church, and leaving only the tower standing, retreated to the north.

But the centre of all the interest of the neighbourhood is **Stirling**. Exactly how far back the memories of the town go it is difficult to say; but the stately earthen terracing under the western side of the castle rock, known now as the King's Knott, is mentioned by Barbour in describing the flight of Edward II. after Bannockburn as the Round Table, and referred to frequently by chroniclers and poets of succeeding

centuries as the scene of a royal pastime called the Knights of the Round Table. Quite probably it dates from the days of King Arthur himself. That hero, we know from the early chronicler, won his great victories in the neighbourhood, and finally fell at **Camelon**, no distance away. Five centuries before Arthur's time Stirling was a Roman station, and four centuries afterwards a Northumbrian fortress. From the days of Agricola, indeed, till the date of the last Jacobite rebellion it was a stronghold constantly struggled for.

Stirling Castle is the key to all the memories of this historic region. Chapel and palace and parliament house, which it contains, were the work of the successive Stuart kings. Here, in 1124, Alexander I. died; here James II. was born, and here Queen Mary was crowned. In one high chamber, reached by an outside stair, James VI. was tutored, and had his ears boxed by the scholar, George Buchanan. In another small chamber in the oldest part, James II. stabbed the rebel Earl of Douglas in the throat. And by the postern door and the wild back path of Ballangeich to which it leads, James V. used to sally forth incognito as the "Guidman of Ballangeich" on the adventurous errands which got him such names as the Red Tod, or fox, and King of the Commons.

Northward out of Stirling is the old tower of **Cambuskenneth**—the abbey of Stirling—on the right. Then the line bridges the river close by the immemorial crossing-place.

The high old bridge on the left, indeed, was for centuries the only dry passage between north and south, and its importance is testified by its ancient name, the Key of the Highlands. When General Blakeney blew up its south arch in 1745, he believed that he had cut off the retreat of the Jacobite army, and the pursuing Duke of Cumberland was considerably delayed in the following spring by the necessity of making it good with beams. The still more ancient **Kildean Bridge**, a mile further west, was said to have been built in the days of Donald V., and bore the legend—

I am free march, as passengers may ken,
To Scots, to Britons, and to Inglis men.

There Wallace won his great battle. The bridge has all but vanished, only a few stobs being visible at low tide. The battle, however, is commemorated by the huge tower to the right on the Abbey Crag, down whose slopes the hero rushed with his little army to the overthrow of the English host. "Wallace's sword," a brand some five feet long, preserved for centuries at Dumbarton, is kept in the tower.

Airthrey Castle, and its beautiful wooded estate beyond, at the foot of the Ochils, was sold at the end of the eighteenth century by the pious Robert Haldane, who spent the proceeds, £70,000, in twelve years, in the spread of religious truth. The estate was bought by Lord Abercromby, and under his ownership the Airthrey mineral springs became popular and gave rise to the famous neighbouring watering-place, Bridge of Allan. No doubt the merit of the springs is largely aided by the beauty and fine climate of the spot, sheltered as it is from the east winds by the Ochil Hills. Among surroundings of interest lies the beautiful estate of Keir—the old “Caer” or fort—ancestral home of the Stirlings. A Stirling of Keir in James V. s time, according to Sir David Lindsay, fought under the walls of Holyrood with Squyer Meldrum for possession of a lady, Mistress Haldane of Gleneagles, and left his opponent sadly cut to pieces. An earlier Stirling of Keir was among those suspected of the murder of James III. at Beaton’s Hill.

A delightful saunter lies up the banks of **Allan Water**, famous in song. The ordinary railway traveller even misses nothing of this, for the line keeps by the waterside, in the bottom of the wooded dell, as far as **Dunblane**.

Here, from the carriage window, looking across the tumbling river to the right, the little city makes a pretty picture, its modern hydropathic contrasting with its ancient cathedral (now restored), and the hills rising behind to the battle-ground of **Sheriffmuir**, where, in 1715, the Jacobites fought Argyll.

Some say that we wan,
Some say that they wan,
And some say that nane wan at a’, man;
But o’ ae thing I’m sure,
That at Sheriffmuir,
A battle there was that I saw, man;
And we ran and they ran,
And they ran and we ran,
And we ran and they ran awa’, man.

The old satire is based on the fact that while the right wings of both armies were victorious, the left wings of both were beaten, both sides in consequence claiming the victory. An ancient gathering-stone on the moor is pointed out as the place where the Highlanders sharpened their swords and dirks before the battle.

At **Doune Castle**, seen presently on the left as the line runs into Doune village, doubtless stood the ancient dun, or strength, of the thanes of Menteith. The existing castle was mostly built by Robert, Earl of Fife and Menteith and Duke of

Albany, the shrewd and unscrupulous brother of King Robert III., and it was a favourite residence of his son Murdach, who died on the Heading Hill. Duke Robert had become Earl of Menteith by marriage with the direct lineal heiress of Walter, younger brother of the fourth High Steward of Scotland, and this Walter had acquired the title by marriage, before the year 1285, with the heiress of Maurice, last of a still earlier race of earls. Curiously enough, though the estates were confiscated at Murdach's execution, they returned to his house at a later day. One of Duke Murdach's sons, it will be remembered, escaped the vengeance of James I. His direct descendant in the reign of James VI. married the heiress of the Regent Moray, and, as the "Bonnie Earl of Moray," regained possession of Doune Castle. His fate was tragic, for through the jealousy of James VI., it is said, he was murdered by the Earl of Huntly at Dunibrisel, near Aberdour. However, his descendants are earls of Moray and owners of Doune to the present day. The castle is a place of immense strength, and so late as 1745 was used as a prison by the Jacobites.

Cambusmore, on the left beyond Doune, was the frequent residence of Sir Walter Scott, and here he gathered the knowledge of neighbouring scenery, of which he has made such picturesque use in "The Lady of the Lake." High in front rises the brow of Uamh Var, where the chase began; and on the Keltie water, in the bosom of the hill, pours the Bracklinn Fall, by whose side Black Roderick's prophet had his vision of fate. Away to the left, under Ben Ledi, the pagan's Hill of God, the chase was carried, by the shores of Loch Vennachar, to the Trossachs and Loch Katrine. At the near end of Loch Vennachar lies Coilantogle Ford, the scene of the duel. And, indeed, every spot of the neighbourhood has been enriched by the poem with the golden glamour of romance.

It is a remarkable fact that the pleasant village of **Callander**, the capital of the district, has no mention in "The Lady of the Lake," though it has, near the manse, the remains of a castle repaired by the Earl of Linlithgow in 1596, and its chief hotel, the Dreadnought, was the last property in Scotland owned by the emigrated chiefs of MacNab. The route *via* Callander is really the only one by which visitors can follow the chase as described in the "Lady of the Lake"; from here the coaches set forth north, towards the hills, but at the mouth of the beautiful Pass of Leny they cross the stream of that name and take the route westward, under the sunny side of Ben

Ledi, followed by Fitzjames at the beginning of "The Lady of the Lake."

Each scene takes some memory from its mention in the poem. To the left, beyond the railway, lies **Bochastle**, where the huntsmen flagged; further on where the Teith leaves Loch Vennachar, was Coilantogle Ford, immortalised by the combat with Roderick Dhu; at the distant end of the shining waterway Lanrick Mead formed the Macgregor's muster-place.

The muster place is Lanrick Mead;
Speed forth the signal, Norman, speed!

Duncraggan above was the scene of the highland funeral from which the weeping heir was summoned to rush eastward with the Fiery Cross.

To the right, here, lies the quaint Highland clachan of Brig o' Turk, where Fitzjames found himself a solitary huntsman. Glen Finglas, which runs up here into the hills, was the scene of the legend embodied in an earlier poem by Scott. The tradition is of two hunters surprised in their sheiling at night by a pair of beautiful young women habited in green. One of the hunters wandered out with his charmer, but the other, suspicious of the circumstance, kept playing on his harp a hymn to the virgin. Day came, the temptress vanished, and, on searching the woods, the young man found the bones of his friend, who had been devoured by the other fiend.

The road winds round the busy shores of "the lovely Loch Achray" to the Trossachs Hotel, which someone has called the most significant monument to Sir Walter Scott. Beyond lies the wooded winding pass, no more than a mile in length, of the Trossachs themselves, between Ben A'an on the right and Ben Venue on the left. Then the narrow waters of Loch Katrine open in front, and one sees what Fitzjames saw—

A narrow inlet still and deep,
Affording scarce such breadth of brim
As served the wild duck's brood to swim,

—and the last secret fastness of the fierce Clan Gregor.

A rustic pier clings now to the steep mountainside, but above, on Ben Venue, may be seen the Goblin's Cave, which of old held many a stolen herd, and higher still, the Beal-nam-bo, or cattle pass, by which these herds were driven in. Then, at the mouth of the narrows, in the loch itself, Ellen's Isle, glorified by the poet's romance, was in reality the secret hold of the caterans, after whom Loch Katrine takes its name. The Silver Strand here was partly submerged by the raising of the water level a few years ago, but is coming again to the surface.

As the steamer sweeps along the loch fancy may weave romance about sequestered dwellings on the shore—Brenachoil, Edraleachdach, Strongalvatric, and other spots whose names are a tale in themselves.

Then beyond the outflow of Glasgow's water supply, on the left, with a glimpse on the right into the far recesses of Glengyle, where the Macgregors still are buried, the voyage ends at Stronachlachar. From the pier it is a charming five-mile coach drive over the moor to Rob Roy's own stronghold of Inversnaid. On the way, at the foot of Loch Arklet, stands the house from which the cateran carried off his wife in the forceful fashion of the old clan days. Farther on is the farmhouse known as the Garrison, which occupies the site of a fort built in 1713 to overawe the clansmen. Here his daughter Oina, who had engaged herself as servant to an officer's wife, was shot at the storming of the place by the clansmen. Wolfe, the future conqueror of Quebec, once commanded the fort. **Inversnaid**, below, was Rob Roy's patrimony. Scott has pictured the chieftain there bidding farewell to Bailie Nicol Jarvie; and Wordsworth, who got dry clothing from the maid of the inn, has sung the charms not only of the lonely lassie herself, but of "the cabin small, the lake, the bay, the waterfall." Time has removed the cabin, but the torrent still sings to the lake and bay.

At Inversnaid Pier the traveller goes on board one of the fine little loch steamers, and continues his tour down Loch Lomond. The shores on the way are strewn with interests. Here are the images cited in the threat of Clan Gregor—

Through the depths of Loch Lomond the steed shall career,
O'er the peaks of Ben Lomond the galley shall steer,
And the rocks of Craig Royston like icicles melt
Ere our wrongs be forgot or our vengeance unfelt.

From Inversnaid to Ben Lomond the eastern shore of the loch is known as **Craig Royston**, and formed the patrimony of the bold Rob Roy. Just under the Ben a cavern may be seen—Rob Roy's prison cave—where he "persuaded" his captives by an occasional dip in the loch. **Tarbet**, opposite, the "boat-pass," takes its name from the feat of Haco's lieutenant, who drew his boats through the hills here from Loch Long to harry the crowded inland shores. **Glen Douglas** may have seen King Arthur's first great battle; and on **Inch Lonaig**, farther down the Loch, grow the yews yet that were planted by Bruce for the bowmen of later combats. Then, from the little Colquhoun village of **Luss**, the steamer crosses among the islands to **Balmaha**. The pass

here was the gate of the Macgregor country, and saw many a creagh of driven cattle from the Lennox go northward in days gone by. The forayers had their burial-place on the island opposite, and the memorials there still justify Rob Roy's oath, "By the halidome of him that sleeps under the grey stane on Inch Cailleach." The name, "Isle of Old Women," is from the nunnery founded there by Kentigerna, mother of St. Fillan. The name of Clairinch, beside it, formed the battle slogan of the Clan Buchanan, whose territory lay at hand about the Endrick's mouth. That territory was acquired in 1682 by the grandson of the great Montrose, and Buchanan Castle there is the chief seat of the Duke of Montrose at the present day. Ross Priory, seat of Sir Alexander Leith-Buchanan, farther along the shore, was a favourite visiting-place of Sir Walter Scott, who gathered there much of the material for his *Rob Roy*. **Inch Murren**, the Duke's deer island opposite, has still the ruin of the Lady's Bower, to which Isabella, Duchess of Albany, retired to end her days after the execution of her father, husband, and two sons by James I. on the Heading Hill at Stirling. Beyond it, on the western shore of the loch, a later tragedy is commemorated in the name of **Glen Fruin**, the Glen of Sorrow. There, in the year 1600, the Colquhouns were decimated by the Macgregors—an exploit which, on the parade of sixty bloody shirts by Colquhoun widows before King James, cost the Macgregors land and name. The Pass of Balmaha, just across the Loch, was the gate of the Macgregor country, and stoutly the wild clan kept it, in spite of Colquhoun and Montrose. Their spirit is well put in the famous boat song from *The Lady of the Lake* :—

Proudly our pibrochs have thrilled in Glen Fruin,
And Bannochar's groans to our slogan replied;
Glen Luss and Rossdhu they are smoking in ruin,
And the best of Loch Lomond lie dead on her side.

Widow and Saxon maid long shall lament our raid,
Think of Clan Alpin with fear and with woe;
Lennox and Leven glen shake when they hear again,
"Roderich Vich Alpine dhu, ho iero!"

A few years earlier, in that same glen, a Colquhoun chief was slain by the treachery of his servant. In lighting him upstairs in his castle of Bannachra, the man made him the mark for the arrow of a besieger outside.

A pleasanter memory lingers about **Boturich Castle**, on the opposite shore. There, as described in a famous poem by Sir David Lindsay, the doughty Squyer Meldrum routed the

Macfarlane raiders, who were attacking the stronghold of his lady-love, Mistress Haldane of Glen Eagles. **Balloch Castle**, farther on, replaces the ancient stronghold of the Earls of Lennox, in which both Wallace and Bruce were entertained, and of which only the ruin mounds can now be traced on the river bank below.

From Balloch the railway runs down the **Vale of Leven**, famous now for its turkey-red dyeworks, and a different spot since Smollett first saw light in its midst. The novelist's monument may be seen on the left above the roofs of **Renton**. At the foot of the valley Dumbarton Rock, with its pregnant memories of King Arthur, Wallace, the Bruce (who died at hand), and Queen Mary, stands sentinel through the ages. Rising on the point of land where the Leven joins the Clyde, the great mass of basalt, a mile round and 250 ft. high, stands like another Gibraltar, the defence of the river. From the dawn of northern annals the rock has been a place of defence, and historic. It was a fortress in Roman times, under the name of Theodosia. Under the name of Alcluith, or Alclud, the rock of Clyde, it was from the sixth to the ninth century the fortress capital of the Cymric or British kingdom of Strathclyde, which stretched from Loch Lomond to the Derwent. And its more modern name of Dunbriton, or Dumbarton, the dun or fort of the Britons, was given it by the neighbouring Gaels, or Scots, who had spread from Ireland over the west Highlands. From century to century it remained one of the keys of the kingdom, all but impregnable, with the tide, as it then did, flowing round it, and only to be taken by treachery or stratagem. Its first capture was probably by the Norse pirates in 780, when, according to the annals of Ulster, it was burned. Wallace is said to have been carried there after his taking at Glasgow by "the fause Menteith." On the execution of Murdock, Duke of Albany, and his two sons by James I., it was stormed and burned by the remaining son, who slew within it "the Red Stewart," Earl of Dundonald, and uncle to the king. From its gates Queen Mary sailed to her marriage with the Dauphin of France, and after her imprisonment by Elizabeth it was the second last fortress in the kingdom to hold out in her interest. It was captured at last, however, in romantic fashion, by Crawford of Jordanhill and Cunningham of Drumwhassel. By advice of a former soldier of the castle, who had accepted a bribe to betray it, they made the attempt at a little-defended part of the rock. It was midnight, and the summit was involved in mist, but had the garrison been alert the attack must have been discovered, for the

first ladder slipped and fell with the men on it. Halfway up, too, one of the men on the ladder was seized with a fit. But Crawford tied the man to the ladder, turned it round, and made the others climb over him. Reaching the top of the wall at last, they stabbed the sentinel as he gave the alarm, and forthwith rushed the place. Lord Fleming, the governor, only escaped by sliding down a cleft of the rock and throwing himself into a fishing boat. But Hamilton, Archbishop of St. Andrews, was taken clad in mail, and promptly tried, hanged and quartered. Dumbarton Castle at the present day is a sleepy place, with a garrison of two or three soldiers; but it may see service again for all that. Thence the line runs up the bank of the Clyde, by **Dunglass Castle**, where the Roman Wall built by the Emperor Antonius, A.D. 140, to exclude from the Roman provinces the barbarous Picts of the North, ended, and Bowling, where the Forth and Clyde Canal begins. The region was the old barony of Colquhoun, and the pile dwellings of a still earlier time have been found among the mud of its shore. Opposite lies the barony of Erskine, ancient patrimony of the Earls of Mar, and late seat of the Barons of Blantyre. Then, through **Kilpatrick**, said to have been the birthplace of the Irish saint; **Dalmuir** and **Clydebank**, with their mighty shipyards and sewing-machine factories; **Whiteinch**, which three hundred years ago was still an island, with its fossil groves of sandstone trees; and **Partick**, gift of David I. to the Glasgow bishopric, the train runs into the Low Level Central Station of Glasgow.



JULY 26—27.

GLASGOW.

Glasgow, the industrial metropolis of Scotland, and the most populous city in Great Britain next to London, is situated on the banks of the Clyde, in the county of Lanark, the portions heretofore in Renfrew and Dumbarton shires having been transferred to Lanark under the Act of 1889. At Greenock, twenty-two miles below, the river spreads out into the great estuary the Firth of Clyde.

The origin of the name Glasgow is a subject which has been much disputed, and is still at best a mere matter of conjecture. From the position of the original settlement on the banks of the Molendinar, which stream flowed to the Clyde through a dark ravine, it has been argued that the name means "dark glen." A more favourite interpretation, however, is based on the fact that a village actually existed on the present site of the city prior to the settlement of Kentigern, and that it was called Cleschu, which name, by a series of natural changes, in time came to be written Glasghu, or Glasgow. This conclusion is probably correct, and admits easily enough of the meaning deduced from it, viz., that in Celtic "glas" signifies "green," and "cu," or "ghu," "dear," thus making the combination Glasgow mean the "beloved green spot."

Glasgow does not occupy an important place in the early history of Scotland. As an archiepiscopal seat, and subsequently as a centre of Covenanting activity, it has a prominence in religious affairs; but as an industrial city its history can hardly be dated further back than the Union of 1707.

This event opened up to the town—the most favourably situated in Scotland for the enterprise—an immense trading prospect with America, and roused in its inhabitants the extraordinary mercantile activity which has been its leading feature ever since. And yet the city of Glasgow is a very old one. It was about 560 A.D. that the half-mythical St. Kentigern, or Mungo, established himself on the banks of the Molendinar, and appeared as the apostle of Christianity to the rude Celts of Strathclyde. There he built his little wooden church on the very spot where now rises the venerable cathedral. From this date, for five

hundred years, the history of the settlement by the Clyde is a blank. The church disappeared from history, and if the village which had clustered round it and grown under the fostering care of the clergy still remained, it was a place of no importance. In the year 1115 the Prince of Cumbria, afterwards David I. of Scotland, ordered an investigation to be made into the lands and churches in the bishopric of Glasgow, and from the deed still existing of that date it is evident that a cathedral had been previously endowed. In 1116 the diocese was restored, and when David a few years after became King of Scotland he gave to the see of Glasgow the lands of Partick, besides restoring to it much of the property of which it had been despoiled. In 1124 he also gifted money for the purpose of building a church, which was dedicated in 1136, and afterwards enriched by many royal and private donations. Between 1175 and 1178 Jocelyn, Bishop of Glasgow, received authority from William the Lion to "have and hold 'a burgh'" in the neighbourhood of the cathedral.

Alexander II. supported Glasgow in a conflict of jurisdiction with Rutherglen, and bestowed on it the rights of trade throughout the kingdom. Robert the Bruce confirmed to the bishop the various charters granted to him, and James II. prohibited Renfrew and Rutherglen from exacting toll "by water or by land" within its territories. In 1450 the city was erected into a regality, which gave the bishop the highest jurisdiction the Crown could bestow on a subject-superior; and within the same year the University was constituted under a bull of Pope Nicholas V., which was confirmed three years later by a letter of privileges from the king and a charter from the bishop and chapter.

In 1454 reference is made to one John Stewart as the first provost that was in the city of Glasgow. After that date the magistrates are described as provosts and bailies; and though it is not recorded how they were elected at that time, in 1476, James III. authorised the ruling bishop in Glasgow to elect so many bailies, sergeants, and other officers as were needed within the city, and to appoint a provost, all to hold office during his his pleasure. This unsatisfactory mode of procedure continued in force till 1587, when the whole of the church lands were annexed to the Crown, and several months later granted to Walter, Commendateur of Blantyre, in feu for payment to the Crown of £500 Scots annually.

Along with other privileges, Blantyre and the Duke of Lennox both claimed the right of choosing the provost and

bailies of the burgh, which privilege had been taken from the church. Glasgow did not fully receive the position of a royal burgh till 1636, when it was incorporated into one royal free burgh, and the freedom of the Clyde from the bridge of Glasgow to the Clochstane in the Firth of Clyde. At the time of the Commonwealth the Glasgow citizens made a strenuous effort to effect the union of England and Scotland; but the death of Cromwell and subsequent restoration of Charles II. delayed it and materially hindered the active trade between the two countries which the policy of the Protector had inaugurated. The city in 1656 is described as a "very neate burghe town—one of the most considerablest burghs in Scotland, as well for the structure as trade of it;" and the same writer commends the "mercantile genius of the people."

As early as 1516 trades in Glasgow were forming into guilds, but it was not till 1672 that the letter of guildry, adjusted in 1605, was confirmed by Parliament, which put an end to the perpetual disputes between the merchants and the trades guilds. These two classes still exist, the former being represented by the Merchants' House and the latter by the Trades' House, the heads of which, the dean of guild and the deacon-convener respectively, have been since 1711 constituent members of the town council. In 1833 all the complicated arrangements in connection with municipal elections were set aside by the Burgh Reform Act, and the number of the councillors in Glasgow was fixed at thirty, over and above the dean of guild and the deacon-convener. Since then the number of magistrates and councillors has increased with the increase of the city boundaries. The council elects the Lord Provost, ten bailies, a bailie of the River and Firth of Clyde, and other officers.

The corporation of Glasgow, since it became a popularly elected one, has carried through great operations for the improvement of the city. By its various departments, each controlled by committees from the general council, the lighting, cleansing, water supply, etc., are administered. In connection with the water supply the corporation in 1854-59 constructed immense works for the supply of water unequalled in the kingdom, bringing it from Loch Katrine, a distance of 34 miles.

The lighting of the city also forms one of the municipal departments, the corporation having acquired powers to purchase the properties of the two gas companies which formerly supplied Glasgow and its suburbs. Between 1866 and 1890 the town council, as the City Improvement Trust, spent two

millions sterling on objects such as are indicated by its title, and at present that body holds property valued at over half a million of money. Of thoroughfares in Glasgow there are about 200 miles, and the Clyde is within the burgh spanned by ten bridges, of which three are railway viaducts and two suspension bridges for foot passengers.

Of buildings possessing historical interest Glasgow is conspicuously destitute, with the very notable exception of the cathedral, which is a fine example of the Early English Gothic style of architecture. It was begun by Bishop Jocelyn about 1197, to replace the church built in 1136 by Bishop John Achaius, which had been destroyed by fire. The structure was largely added to by Bishops Bondington and Lauder, and was practically brought to its present form by Bishop Cameron in 1446. It was saved from injury in the fit of iconoclastic zeal which followed the Reformation by the activity of the Glasgow craftsmen, and afterwards, from time to time, was carefully repaired by the Protestant archbishops who governed the see until the Revolution. It was designed to be in the form of a cross, but the transepts were never erected. From the centre rises a tower surmounted by a graceful spire 225 ft. in height. The most famous part of the building is the so-called crypt under the choir, which for elaborate designing and richness of ornamentation on pillars, groining, and doors, stands unrivalled amongst similar structures in Britain. Properly speaking, however, it is not a crypt, but a lower church formed to take advantage of the ground, sloping eastward towards the bed of the Molendinar. About 1854, under the direction of the Government, the building was repaired and renewed, its general character being scrupulously maintained. At the same time the ancient tower and consistory house on the west face of the cathedral were removed. Since then a series of stained glass windows has been provided, mostly by Munich artists.

The City Chambers, opened in 1889, built at a cost of £530,000, form an architectural feature of great importance, and occupy a prominent position, filling the east side of George Square. The Royal Exchange, a handsome building ornamented with colonnades of Corinthian pillars, contains a large news-room. In the building of churches Glasgow has made great strides during the last forty years—probably no other town in the United Kingdom has done more in this respect—and the ecclesiastical buildings of all denominations vie with one another in the elegance of their adornment. The architecture of many of the banks and other public buildings is varied

in style and rich in detail; and the Post Office buildings, of which the foundation stone was laid by the King—then Prince of Wales—in 1876, though severely plain and massive, deserve mention for their great size and perfect planning. Not without reason, indeed, Glasgow has been called one of the best-built cities of the empire. Its streets are well laid out and spacious, and the houses which line them are substantially built of excellent stone, which is quarried in abundance round the city.

The city is especially well provided with public parks, having three beautifully planned pleasure grounds in different districts, besides the Glasgow Green—a wide expanse along the north bank of the river—all of which are maintained by the Town Council as a Parks and Galleries Trust.

The **Glasgow and West of Scotland Technical College** was formed in 1886 by the amalgamation of several institutions (including the arts department of Anderson's College) under a scheme formulated by the Educational Endowments Commission. It has over 2,000 students attending its day and evening classes. It provides suitable education for those who wish to qualify themselves for following any industrial pursuit, and trains teachers for technical schools.

The **River Clyde** has been a chief source of the great prosperity of Glasgow, and it is to the credit of Glasgow citizens that through their enterprise its utility has almost been created by the gigantic works of narrowing the channel and dredging, so that, within the memory of persons still alive, what was a stream over which one could wade has now become a channel capable of allowing ships which draw 24 ft. of water to ride at anchor. The magnificent fleet of river steamers, which are noted for speed, comfort, and elegance of appointment, afford a rapid and easy means of access to all the Western Highlands and islands, thus making Glasgow the metropolis of the west. On the river and harbour the Clyde Navigation Trust has spent about eleven millions sterling, and the annual revenue usually exceeds £300,000, while the Customs revenue of the port amounts to more than £1,500,000. The principal feature of the Clyde beyond the harbour is the great ship-building and marine engineering yards which line its sides, and which have flourished since the second quarter of last century. The pioneers of these industries—the Napiers, Charles Randolph, John Elder, etc.—have a world-wide fame. They launched from their yards the most perfect examples of naval architecture and engineering skill of their day, and their successors at the present day are still in the first rank of modern shipbuilders.

To the success of the little *Comet*, the earliest trading steamship in the Old World, which began to ply between Glasgow and Greenock in 1812, may be traced the great development of shipbuilding and shipping on the Clyde.

But another factor in the industrial prosperity of the city is the fact that it is built over a coalfield rich in seams of ironstone. Glasgow is exceptional in having blast-furnaces actually within its municipal bounds. It was in the neighbourhood of the city that the first experiments with Neilson's hot-blast in iron furnaces, patented in 1828, were made, and the economy thereby effected developed the iron industry so rapidly in Glasgow as to distance for a long period all competition. Great forges with powerful steam-hammers and other appliances, the making of steam-tubes, boiler-making, locomotive-engine-building, sugar machinery, and general engineering are among the most important industrial features of the city.

Bleaching and calico printing were established in Glasgow in 1738, nearly thirty years earlier than in Lancashire. The dyeing of turkey-red was inaugurated in 1785 as a British industry by two Glasgow citizens, David Dale and George M'Intosh—the colour being known for a long time as Dale's red; and this branch of trade has developed in Glasgow and the neighbourhood to an extent unequalled in any other manufacturing centre.

In Glasgow bleaching powder (chloride of lime) was discovered by Mr. Charles Tennant, who thereby laid the foundation of the gigantic St. Rollex Chemical Works, and gave the first impetus to chemical works generally. These, along with the spinning and weaving industries which have been centred in the great city factories since the inventions of Arkwright, Cartwright and others superseded hand loom weaving, have for the past century afforded employment for a great proportion of the population of the town. The University of Glasgow was founded on January 7, 1450, by Bishop Turnbull, who procured a bull of ratification from Pope Nicholas V. In 1460, James, first Lord Hamilton, endowed a college on the site—in the densest part of the High Street—of the late buildings, the older portions of which were erected between 1632 and 1656. Queen Mary bestowed on the University 13 acres of adjacent ground. In 1577 James VI. granted increased funds in a new charter. In 1864 the university buildings and adjacent lands were sold for £100,000 and handsome new buildings, designed by Sir G. Gilbert Scott, were erected at Gilmore Hill, overlooking the West End Park, and opened in 1870. The total cost

was about £470,000, of which £120,000 was granted by Parliament, and above £250,000, subscribed and otherwise obtained, chiefly in Glasgow.

The library was founded prior to the Reformation and now contains about 175,000 volumes. It is supported by an annual grant of £707 from the Treasury, graduation fees, the contributions of students, etc. Subsidiary libraries are attached to several of the classes, the books being selected with a view to the subjects treated in each class. In July, 1781, the celebrated Dr. William Hunter, of London, framed a will leaving to the principal and professors of the university his splendid collection of books, coins, medals and anatomical preparations; and for the accommodation and conservation of these a building was erected in 1804, but they are now located in the new university. The university also possesses an observatory, and has certain rights in Glasgow Botanical Garden; and several of the professors have collections of apparatus attached to their classes, illustrative of the courses delivered.



THURSDAY, JULY 27.

Glasgow to Greenock and the Clyde.

The line to Greenock passes through **Paisley** (pop. 79,000). This town has been celebrated from a very early period for its textile manufactures, and is at present well known as the site of the thread factories of J. & P. Coats, Ltd. Of the other places on the Glasgow and South-Western Railway route, **Elderslie**, the birthplace of the patriot William Wallace, may be specially mentioned. Shortly after passing Kilmalcolm an excellent view of the Clyde is obtained. Among the prominent features of the landscape may be mentioned the peak of Ben Lomond in the distance, the hills of Loch Goil and Loch Long, and Dumbarton Rock, on which stands Dumbarton Castle. At the foot of the hill along which the line passes is situated **Port-Glasgow**, a well-known shipbuilding centre. The town of **Greenock** (pop. about 68,000), notable as the birthplace of James Watt, though of comparatively modern origin, is one of the most important seaports of Great Britain. It has long been associated with sugar refining, and possesses large engineering and shipbuilding establishments. The steamer sails from Princes Pier, on which the terminus of the Glasgow and South-Western Railway is built. Opposite Greenock, and situated at the mouth of the Gareloch, an arm of the firth stretching northward for a distance of $7\frac{1}{2}$ miles, is the popular residential seaside resort, **Helensburgh**. Leaving Princes Pier the steamer passes Fort-Matilda and Gourock—a terminus of the Caledonian Railway—on the left, and crossing to Kilcreggan turns into Loch Long (twenty-four miles long and two miles broad), near the mouth of which on the east coast lies Coze. At this point a fine view is obtained of the Loch Long hills to the north and of Ben Lomond to the north-east. About ten miles from its mouth Loch Long gives off a branch to the left, Loch Goil, which runs in a north-westerly direction for about six miles. At the head of this Loch lies the small village Lochgoilhead, from which, *via* Hell's Glen, a road leads through wild and picturesque mountain scenery to St. Catherine's Ferry on Loch Fyne, opposite Inverary. **Carrick Castle**, an old stronghold of the Dunmore family, is seen on the left side of Loch Goil when

sailing up the Loch. Returning to Loch Long, the steamer proceeds into the upper part of the Loch, which is here less than two-thirds of a mile broad. At this point the Arrochar hills, among which the Brack (2,500 feet) and Ben Arthur or the "Cobbler" (2,750 feet) may be mentioned, are well seen. The village at the head of the Loch is **Arrochar**.

Leaving Loch Long on the way to the Island of Bute, the Holy Loch is observed on the right. At the mouth of this loch, on the south side, is situated Hunter's Quay, the headquarters of the Royal Clyde Yacht Club. The steamer now passes in succession the popular watering places, **Kirn, Dunoon,**



THE KYLES OF BUTE.

and **Innellan**. On the hill above Dunoon pier are seen the ruins of Dunoon Castle, the hereditary keepership of which was conferred by Robert Bruce on the family of Sir Colin Campbell, an ancestor of the Duke of Argyll. On rounding Toward Point, on which a lighthouse stands, Rothesay Bay comes into view. **Rothesay** (pop. 10,000), the chief town on the island of Bute, is situated in the bay. In the centre of the town are the ruins of Rothesay Castle, supposed to have been built about 1100, and at one time a royal residence. On the east side of the island, five miles from Rothesay, is Mountstuart, the seat of the Marquis of Bute. Passing Port Bannatyne and Kames Bay on the left and the mouth of Loch Striven on the right the steamer enters the **Kyles of Bute**, the strait separating the

island from the district of Cowal. On its way through the Kyles the steamer passes on the right Colintrave, Loch Ridden, and the pretty village of Tigh-na-bruaich. Leaving Ardlamont Point at the entrance to Loch Fyne on the right, the steamer proceeds past the small island of Inch Marnock to the south end of Bute, from which an excellent view of the island of **Arran** is obtained. This island, which is about twenty miles long and eleven broad, is almost entirely the property of Lady Mary Douglas-Hamilton. The Arran Hills, composed mainly of granite, are a prominent feature in the landscape. The highest peak is Goatfell (2,866 ft.).

Rounding Garroch Head the steamer passes the small islands Little and Great Cumbrae, and proceeds northwards past Wemyss Bay, near which is situated Wemyss Castle (the residence of Lord Inverclyde), and Inverkip. After turning Cloch Point (lighthouse) the steamer soon reaches Greenock, having passed Ashton, Gourock and Fort Matilda on the right.

In the evening, at 8.30 p.m., a reception will be held in the Municipal Buildings by the Lord Provost and Magistrates of the City of Glasgow.

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